



# Super Public

a housing project in China



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## Abstract

Nowadays urbanization has been processing in a very fast speed in China. Meanwhile, urbanization also leads to many negative effects on Chinese cities. Public space is widely undermined in housing blocks, streets and communities. By researching urbanism design theories and space types, the thesis attempts to conclude the design thinking for public space and provide suggestions for architectural design based on China's realities. With the conditions of Super Public, a housing project would comprehensively use design strategies to integrate public space and many other urban functions.



Fig. 1  
The Skyline of Nanjing has changed from 1983 to 2010. The tallest building in 1983, Jinlin Hotel(red arrow) can be easily neglected in concrete forest in 2010.

## Introduction

*"Isolation of crowds, foul air, excessive hours, chances of employment"* the description of great industrial cities which appeared in Ebenezer Howard's book in 1897, *Garden Cities of Tomorrow*, reflects contemporary Chinese cities appropriately. On the one hand, China is repeating the dilemmas that the developed western countries had experienced in their urbanizations in history. On the other hand, the problems in China also have special aspects, such as the size of the population and the speed of development, which are difficult to find references from the rest of the world.

China is undergoing the largest urbanization in human history, while many cities are losing their identities due to the wide range of demolition and construction. Since the economic reform in 1979, a more authoritarian politic system has the ability to promote its vast urban renewal project in many cities. The urbanization progresses with huge movement of population from countryside to cities. In the foreseeable future, both of the size and density in Chinese cities will continue to increase.

Furthermore, urbanization also changes the mode of living. More people would live in isolated high-rise towers. The intimate residential areas in old downtown have been enlarged to huge scales and distances. Many alleys, streets and traditional yards where communal life happened have been demolished. The disappearance of public space is more and more common in Chinese cities. However, the new housing in China still does not give enough attention to create new types of public space. The city renewal planning still is a process of brutal expansion.

The thesis will focus on the lost public space. The researching phase includes background description, phenomenon analysis and conclusion. A method of typology will be introduced to study the types of public space in various urban conditions. During the project phase, this thesis aims to discover the usabilities of different public space. It is a schematical design with a

precondition of Super Public. Super Public is a concept that inverts the existing proportion of public and private space in collective housing. Super Public gives enough space to designer to create scenarios and types for public space. With a very low density, it is not a practical design for a specific purpose. But it is a collective thinking about design strategies for public space. The design would attempt to involve various street events, common rooms and residential units. From urban street to each housing unit, the public space can be created in many levels. All in all, the public space aims at building up a vibrant community life for the inhabitants there.

The site locates in Nanjing, China. It is a joint point of historical buildings(e.g. the city wall and city gate), landscape, river and old residential districts. Nanjing is the capital of Jiangsu Province, around 300 kilometers away from Shanghai, the most important city in eastern China. As many other large Chinese cities, it has been expanding a lot during the past 30 years. (See Fig.1) The urban problems present in Nanjing are also happening in other major cities in China. So the considerations and concepts in this design are not specifically connected with Nanjing, but also linked with a wider background of Chinese large cities.



# 1. Background description

## 1.1 "a theater of memory and prophecy"

*"The city is a theater of human events. This theater is no longer just a representation; it is a reality. It absorbs events and feelings, and every new event contains within it a memory of the past and a potential memory of the future."* Peter Eisenman ,the preface of *The Architecture of The City*

Every citizen has long association with some parts of his city.

<sup>1</sup> A long time dwelling in one place leads to a sense of safety and belonging. It is not an instantaneous feeling but a process of orientation, which would eventually build the emotional connection between dwellers and their surroundings. However, with the demolition and construction, it is questionable whether people in Chinese cities still can maintain their original memories and specific identifications. Evidently, the legibility of each city in China is decreasing. Central avenues, fancy skyscrapers and mega squares are being duplicated in each Chinese old city. For example, Wang Shu once mentioned the visual similarities between Hangzhou and Hong Kong<sup>2</sup>, who has pointed out the historical city, Hangzhou, has already been fully occupied by modernism blocks and hence acquires a similar skyline with Hong Kong.

Kevin Lynch in his book, *The Image of The City*, attempted to research the methods that people perceive their city and the formation of their urban memory. In Lynch's opinion, a highly imageable city would be apprehended over time as a pattern of high continuity with many distinctive parts clearly inter-connected.<sup>3</sup> In contrast, the situation nowadays is that each building wants to emphasize itself and new buildings are

juxtaposed with historical architectures. Neither of them can provide any continuity nor connection in architectural sense. These new impacts are replacing the tradition and becoming the instinctive memory about Chinese cities today. In architectural field, the exact age of a city is around 20 rather than hundreds years old.<sup>4</sup> It is predictable that a collage image of isolated modern towers and scattered historical remains will reconstruct the impression about China.

## 1.2 the lost street life

Traditionally, streets provide such as a place for various events. It is a space for walking, meeting, dealing and playing. As a result, the street can be simultaneously functional as traffic space, commercial space, communication space etc.. It is the place where is possible to receive different contents and acquires its independent identity. However, nowadays many streets have lost these traditional programs and are dominated by the function of mobility. Just like Roger Trancik put forward in *Finding Lost Space, Theories of Urban Design*

*"The social and commercial role of the traditional street has been further undermined by such Modern Movement design features as enclosed malls, midblock arcades, and sunken or raised plazas. These have siphoned shopping and entertainment off the street, which no longer functions as a gathering place. The modern city dweller is forced to create a social life on personal, controllable territory instead of engaging in a communal existence centered around the street. "*

With a rapid urbanization, the reduction of street space can be justified by a series of phenomena. For instance, in some areas in China, the restaurants along the street might occupy the

1 Lynch, Kevin. *The Image of the City*. Cambridge, MA: MIT, 1960. Print. P1.

2 Kenzo Tange Lecture: Wang Shu, "Geometry and Narrative of Natural Form", Harvard University, GSD, 2011.

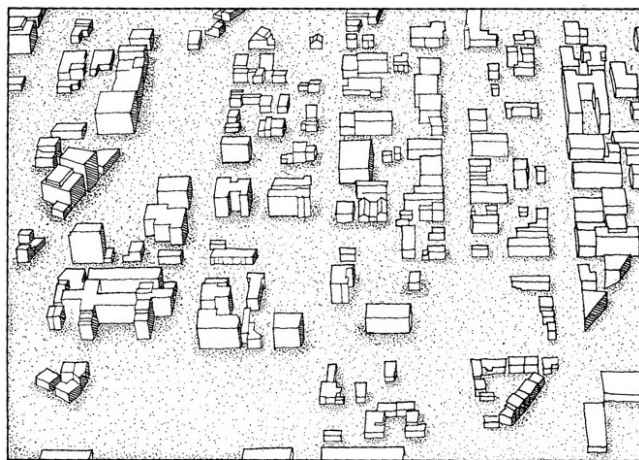
3 Lynch, Kevin. *The Image of the City*. Cambridge, MA: MIT, 1960. Print. P10.

4 The conversation between Wang Shu and Roan Ching-yueh, <http://www.youtube.com/watch?v=YRsEJa741Fs>



Fig. 2,3,4  
The urbanization of Hangzhou. These pictures are from Wang Shu's lecture, *Geometry and Narrative of Natural Form*, at GSD, Harvard University.

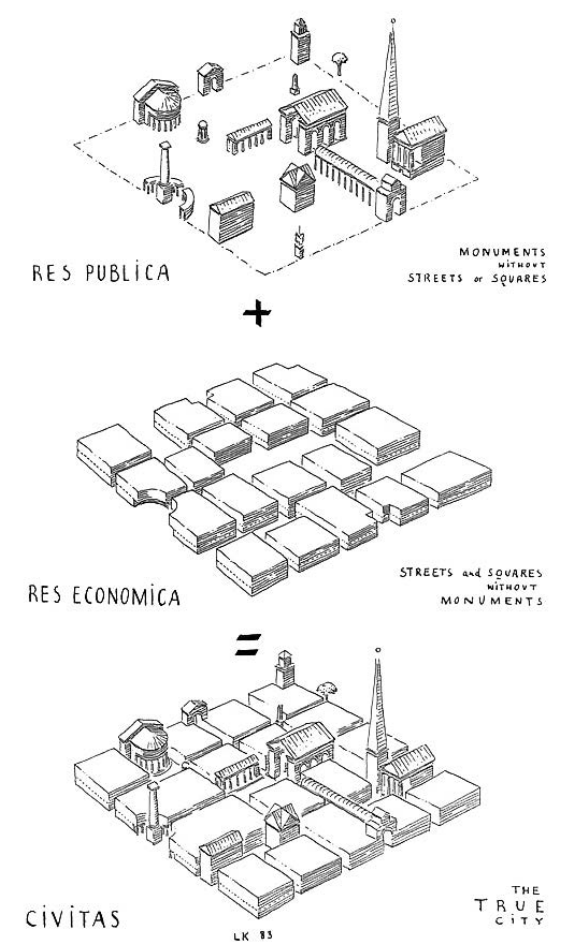




**Fig. 5 (upper left)**  
"Without the paved surfaces buildings have little if any relationship to one another." Diagrams of Washington D.C. from *Finding Lost Space*, *Theories of Urban Design*, Roger Trancik.



**Fig. 6, 7 (bottom left)**  
The pictures show the street views near to Linked Hybrid in Beijing, a housing project designed by Steven Holl. The case will be cited in this thesis later. In spite of an innovative design, the pictures still reveal the difficulties of introducing various urban programs to a housing complex. So people who want to sell their products have to stay under the traffic bridge. It is also noticeable from Fig. 6 that the new urban streets do not thoroughly consider the convenience for bikes.



**Fig. 8(right)**  
Léon Krier's drawing about the relationship between urban monuments and economic buildings

space of sidewalks. It would be an arbitrary conclusion that there is no clear regulation or there is no public power to operate the regulations. However, it reveals a requirement and shortage of urban public space for commercial activities. Again for instance, the outsiders and migrant workers who immigrate into cities cannot find their original street space where they were able to make for their jobs and livelihood. So, they begin to occupy some other urban space, such as the edge of residential area or the space under traffic bridges. It is the consequence due to the lost of street life, and gives a cold and unwelcome face to the city. (See Fig.8)

### 1.3 settlements in dense

Despite the public space is decreasing in China's cities, most of the new buildings cannot provide effective solutions to reconstruct the relationship between public and private space. The new housing projects are more market oriented. Real estate developers are so reluctantly to add public space in their buildings. However, the private space has developed. But the urban spatial quality actually became the price to afford that. For the whole city, the collective housing that simply arranged in rectangular grids are replacing original urban context. The unique topography of each city would be erased and many cities would eventually share a similar face.

Moreover, a new spatial structure therefore has been founded

in housing complex, which can be interpreted as a privatization of public space. In China, the complexes are usually managed by property companies. The open ground between buildings is actually semipublic and belongs to the inhabitants there. One of the property companies' jobs is to control the outsiders to enter the complex, which makes the whole area isolated from the city spatially. Therefore the inner part of the complex has no longer any urban role. All the urban functions provided by original streets are now condensed at the edge of the complex, which triggers problems such as the occupation of sidewalks and traffic jam. In all, it accelerates the production of urban problems rather than easing them up.

Tenants in these high-rise towers cannot easily be involved in activities on street. Instead of a community, the urban life would be divided as a series of movements between locations, such as office, supermarket and apartment. It seems that people have lost the in-between space. On the other side, there is a realistic and urgent demand for public space in cities. For example, a vibrant social life in evening actually is very common in China. Different from the night club culture for young people, some public activities from elderly people usually happen in city parks or any open public space. One of the most famous case might be the Square Dancing, which is a widely spread hobby for retired people in China in the evening to dance at outdoor space. It is an exercise but also a social activity. Because of its

popularity and the fast aging population in China, a large number of elderly people have participated in the event. Sometimes, people even begin to complain that they are too disturbing and noisy. Besides, it is also common to observe morning exercise in city parks. Like Square Dancing, it also has a purpose of sociability. As a result, architects should be encouraged to design the public space and improve the conditions of these events. But obviously the current housing point blocks cannot satisfy such a huge demand in cities.

### 1.4 delirious China

*New York is a city of monuments such as I did not believe could exist. Aldo Rossi, The Architecture of The City, 1978*

Recording to Rossi, a city is composed of monuments and other elements, which are relatively easier to change or rebuild. For another urban theorist, Léon Krier, perhaps he is famous for his obsession about classic European cities. But his drawings expressed a meaningful thinking about monuments and their connections with the city. The drawings implies that a sensible combination of historical monuments and functional buildings can constitute the urban space in a better way. However, due to the lag in development in recent 200 years, China has lost the chance to update its cities step by step. The city renewal reveals a fanatic expansion of contemporary monuments. The skyscrapers were widely built up and many cities in China

are actually duplicating Manhattan. In many cases, these new modern monuments are irrelevant to any event which is worth to be commemorated. They cannot be considered as architectural necessities either. Somehow they just manifest an inequality about the distribution of social wealth.<sup>5</sup> As a strategy that has been widely used, placing building blocks on an open two-dimensional plan would raze up any local characteristic. Moreover, this kind of transformation benefits the land speculation only, but it eventually would lead to a bored repetition in urban spatial structure.<sup>6</sup>

<sup>5</sup> The Gini coefficient reached 0.474 in China in 2012, higher than the warning level of 0.4 set by the United Nations. See "China Statistical Yearbook-2012." National Bureau of Statistics, 2012

<sup>6</sup> Rossi, Aldo, and Peter Eisenman. *The Architecture of the City*. Cambridge, MA: MIT, 1982. Print. P150





Fig. 9  
Square Dancing. It is a very common social activities in nowadays China.

## 2. Analysis

A city works a field of application of various forces.<sup>7</sup> In history, ambitious constructions promoted by authorities can change the appearance of city thoroughly. In social and economic sphere, the issues like the growth of population, various core values (e.g. collectivism or individualism) and different cognitions about density, would result in varying types of settlements. Besides, the technical progress, such as the improvement of mobility and the new techniques in engineering, are always able affect cities in many ways. With such a vast background, this thesis will pick up some factors that related to the loss of public urban space in China.

### 2.1population and urbanization

In 2011, the urbanization ratio of China reached 51.2%, which was historically the first time that the urban population surpassed the rural population. However, compared with this statistics in developed countries in the same year, such as 84% in Finland; 91% in Japan and 82% in the USA,<sup>8</sup> it is obvious that during quite long time in the foreseeable future China still has to keep transferring huge population from countryside to its cities. It can be predicted that the size of the cities will be grow and the density will increase continuously. In other words, despite there are several serious urban problems today, it does not mean a termination of the rising density in China's great cities. Actually, in some other Asian mega cities, the densities there are much higher in their Chinese counterparts. For example, the population per square kilometer is 10,944 in Singapore, 10,402 in Seoul and 5,943 in Tokyo, compared with 5,776 in Shanghai, 5,263 in Guangzhou and 4,804 in Beijing.<sup>9</sup> It reveals that the

average density in China's cities is not as high as we thought. In other words, they are not crowded enough yet. The growing population has created a huge pressure that encourages the widespread construction of point-blocks, which is a highly effective solution for containing as many people as possible on a limited area. But density is not the excuse to neglect or degrade the spatial quality of dwelling. In contrast, it requires a design thinking to find the strategy to develop public space.

### 2.2mobility

Mobility, which can be understood as the speed of movement, is a decisive factor about how people to experience their cities. Jane Jacobs in her book, *The Death and Life of Great American Cities*, criticized a lifeless urban environment due to the fast increase in automobile traffic in the United States. The wide usage of automobile lets people to enjoy the convenience of traveling. However, nowadays cars have occupied so much urban space on roads that they are squeezing other urban functions out of the street. With slower speed, it is easier for pedestrians to have social activities than drivers. And people can appreciate their urban circumstances with more details when walking or biking. The size of the words of shops or advertisements, for instance, need not to be enlarged so that those on vehicles can read them. Architecture can be more fully displayed rather than hiding behind advertising boards. Thus, a slower speed is one element that could promote a city to be more vibrant and open. Instead, if automobiles became the only way for everyone to move, the spatial structure of street would further degrade to cold and enclosed channels. Moving with a speed higher than 60km/h, people cannot notice any display windows along the street. Like Jan Gehl said in *Cities For People*:

*"When we walk at our usual speed of 4 to 5 km/h, we have time to see what is happening in front of us and where to place our feet on the path ahead. The 60km/h scale has large spaces*

<sup>7</sup> Rossi, Aldo, and Peter Eisenman. *The Architecture of the City*. Cambridge, MA: MIT, 1982. Print. P139

<sup>8</sup> World Bank. <http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS>

<sup>9</sup> Davis, Bob. *Beijing Puzzles Over Urban Growth*. *The Wall Street Journal*. 09.05.2013. <<http://online.wsj.com/article/SB10001424127887323361804578389943868485434.html>>



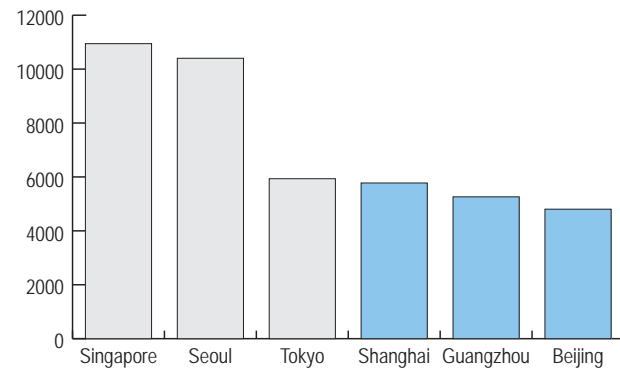


Fig. 10  
The chart shows the urban densities (the total population per square kilometer) in Asian major cities. Data comes from *Wall Street Journal*

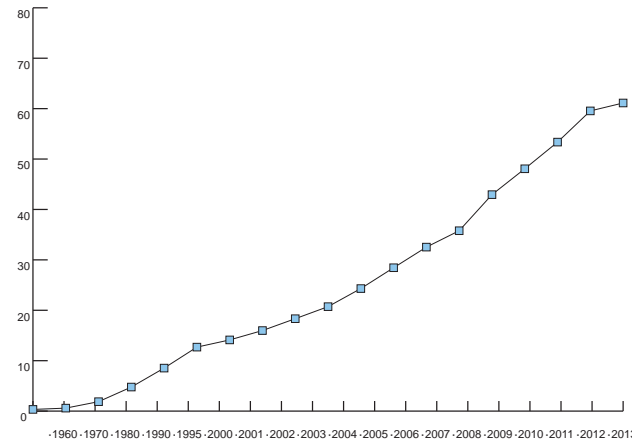


Fig. 11  
With the improvement of income, the number of cars per thousand people grows fast in China. The data comes from China's National Bureau of Statistics.

and wide roads. Buildings are seen at a distance, and only generalities are perceived. Details and multifaceted sensory experiences disappear, and from the perspective of a pedestrian, all signs and other information are grotesquely magnified."<sup>10</sup>

Unfortunately, the car industry in China has developed rapidly in recent years. With soaring wages, the market for automobiles is growing fast. In Nanjing, for instance, there were only 7,2400 personal owned cars in 2002. However, the number was over 0.9 million at the end of 2012.<sup>11</sup> For containing more cars, the narrow roads in old towns have been widened by demolishing old buildings. The mega traffic bridges have become a popular way to process each transport joint, which would divide the whole city into pieces and produce more lost space.(E.g. the useless space under the bridge). It seems that is an inevitable vicious circle if we cannot purpose more sustainable developing strategies. China used to be famous for its huge biking population. However, the new city planning does not give enough attention to maintain such a good tradition. All in all, street is not only dominated by the automobiles. As Louis Kahn said, street is the "living room of the city". A comprehensive thinking which can combine different moving speeds and the consideration of social activities would be more appreciated.

### 2.3 land speculation, a local issue

In mainland China, the ownership of land is public, which implies it is under the control of the public management sectors. After finishing the construction of fundamental infrastructure, local governments usually rent the land to real estate developers with a much higher price. The profits from the increase of land value has already become one of the most important financial

income of local government. This phenomenon is named Land Finance or Second Finance<sup>12</sup>, which enable local government to make profits times over its investment. In 2008, the Land Finance in Zhejiang Province accounts 101% of its official public budget, which was the highest ratio among all the provinces in China.<sup>13</sup> Such a high proportion of governmental income from land dealing has already become a serious economic and social problem. The overall operation, which includes the indulgent of commercial profits, corruption and the abuse of public power, is not sustainable and is full of risks. In a way, it also suggests that the government actually depends on a huge range of demolition and construction. Thus, the transformation from original urban context to a rectangular net has been used widely for the convenience of land dealing and maximization of land developers' profits. As a consequence, it encourages the brutal urban renewal without a sustainable strategy. In a way, they have already left the real traumas on Chinese cities.

### 2.4 modernism

Based on an architectural perspective, the housing projects in China are usually very functional and sometimes they reveal a strange combination of modernism and local decoration elements. With a briefly review of modernism, Le Corbusier began to apply the linear and nodal building physically as a large-scale urban element, which is a principle to define districts or social units.<sup>14</sup> In his plan of Voisin, Le Corbusier displayed his heroism dream to build the Radiant City. It was such a brave

<sup>12</sup> Zhang, Jing. "我国地方政府土地财政依赖问题分析 The Analysis of Financial Dependence of Land in Chinese Local Governments." *Journal of Chongqing University of Science and Technology* 2013th ser. 05 (2013).  
<sup>13</sup> Zheng, Xinye, and Fanghua Li. "土地财政有多重要 The Importance of Land Finance." *Institute of Economic Research of Renmin University of China*. Feb. 2010. <<http://ier.ruc.edu.cn/>>.  
<sup>14</sup> Trancik, Roger. *Finding Lost Space: Theories of Urban Design*. New York: Van Nostrand Reinhold, 1986. Print.P26

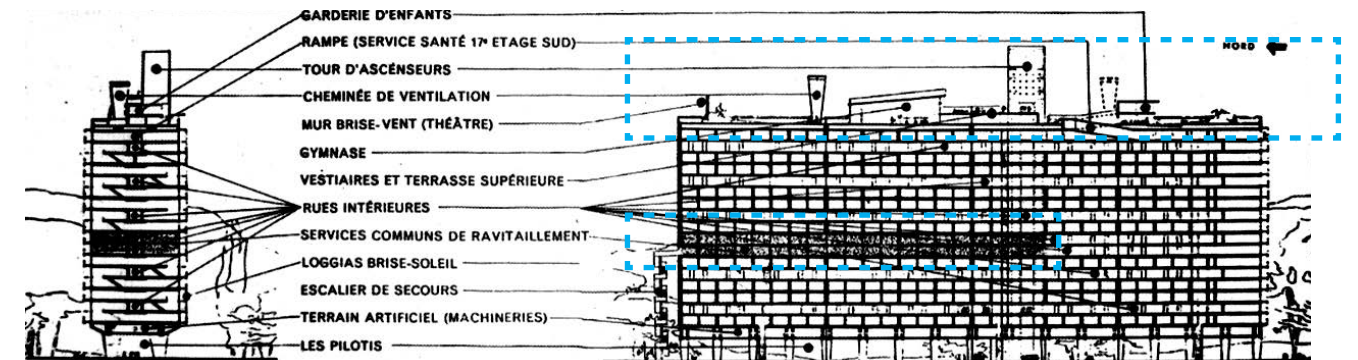


Fig. 12  
On the elevation and section of Unite d'Habitation of Berlin, it shows the locations of common service space and roof gyms.

action which broke the traditional values and corresponded to the demand of a fast urbanization. The prevailing attitude of the Radiant City was to start from a clean slate.<sup>15</sup> Somehow, it fits to the situation in China: a large amount of agricultural land has been changed to urban land, which has provided a wide open plan for new buildings. So the Chinese urbanization always processes with more urban expansion than the renewal of old districts. Even though the Radiant City was never built, it has become the prototype of many new districts in China. Ironically, Le Corbusier's idea about public space is not realized in China. For example, in his housing project, Unite d'Habitation of Berlin, a common service space which includes shops and hair salon was placed on the two floors in the middle of the height. Besides, the roof functions as a gym which provides various programs such as interior badminton courts and swimming pool. These concepts which enable a housing tower more likely to be an independent community have been neglected in Chinese projects.



Fig. 13  
There is a paddling pool for children on the roof of Unité d'Habitation developed by Corbusier in marseille, France.

<sup>10</sup> Gehl, Jan. *Cities for People*. Washington, DC: Island, 2010. Print. P44  
<sup>11</sup> Nan Chen. 现代快报 Modern Express. 1 Jan. 2013. <<http://jiangsu.sina.com.cn/news/m/2013-01-28/071338606.html>>.

<sup>15</sup> Trancik, Roger. *Finding Lost Space: Theories of Urban Design*. New York: Van Nostrand Reinhold, 1986. Print.P27



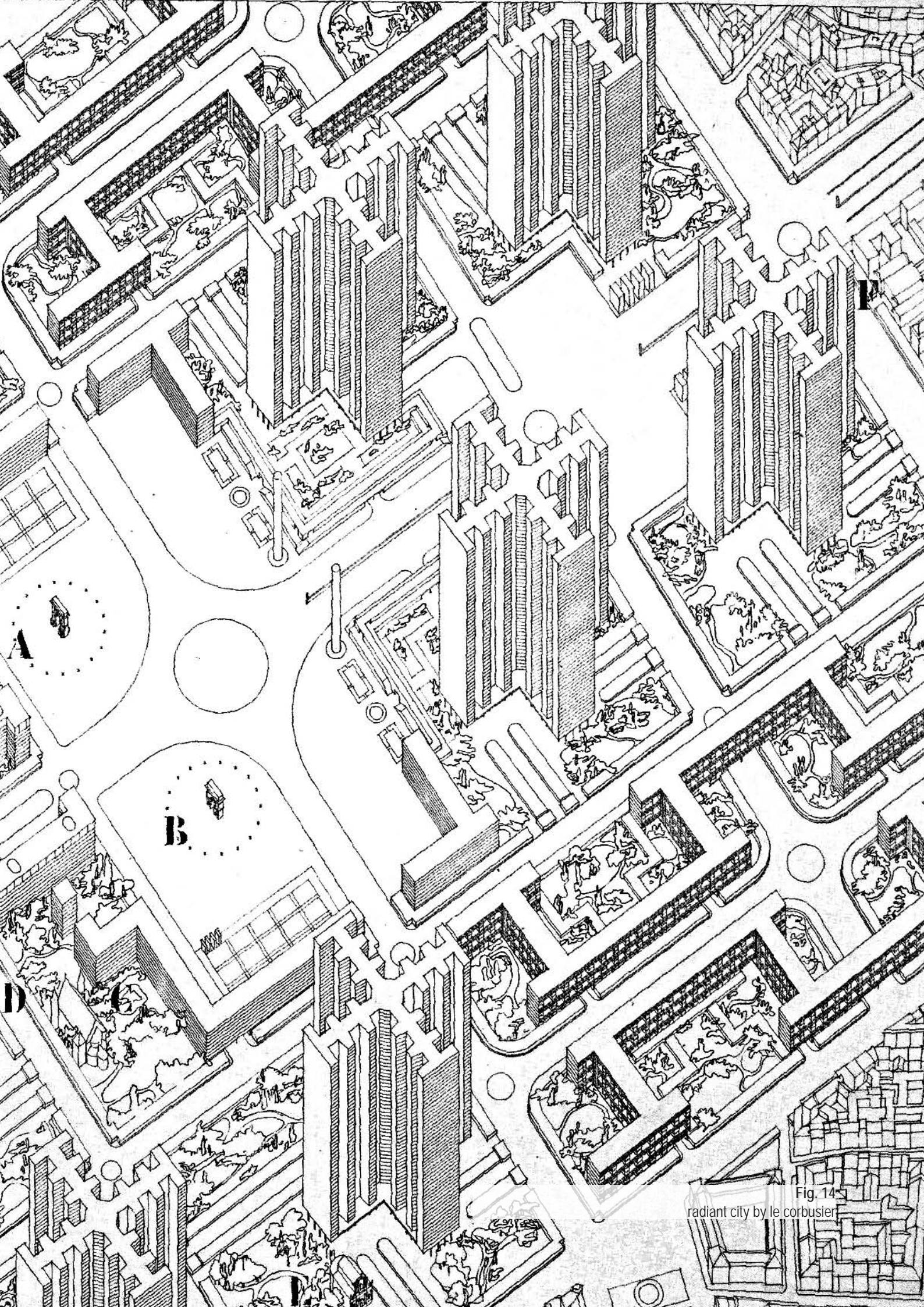


Fig. 14  
radiant city by le corbusier

### 3. Urban theories and research methods



Fig. 15  
Nolli's Map analyzed the spatial layout of Roma by figure-ground.

This chapter attempts to narrate urban public space with a review of theories and research methods. In addition, it is not only a short demonstration of methods, but also an understanding of public space with a theoretical navigation. For example, an architectural layout that emphasizes public space also reflects on its figure-ground. In many ways, boundary divides the private and public realm and the locus gives space identities.

#### 3.1.the figure-ground

The figure-ground approach is based on the study of the relationship between solid building (figure) and open voids

(ground).<sup>16</sup> It is an abstract way to analyze a city. Nolli's Map, which analyzes the spatial order of Roma by figure-ground, usually can be seen as the early study about this approach. From Nolli's map, it seems that the footprints of buildings and the empty space were equally treated and they shaped each other. The public space founded a clear frame to support the solids. As Colin Rowe commented:" the solid and continuous matrix or texture giving energy to its reciprocal condition, the specific space; the ensuing square and street acting as some kind of public relief value and providing some condition

<sup>16</sup> Trancik, Roger. Finding Lost Space: Theories of Urban Design. New York: Van Nostrand Reinhold, 1986. Print. P98





Fig. 16  
The Rolex Learning Center in Lausanne in Switzerland, SANAA

of legible structure."<sup>17</sup> In contrast, the development track of modern architecture reveals a disconnection between figure and ground. On the one hand, modernism architecture approaches to emphasis the solids only and processes the voids as the background of freestanding buildings. Point-block got the name because of its isolated top view. On the other hand, the streets are too wide and fully occupied by cars that pedestrians on either side of road can hardly interact with each other. Street has been spatially integrated with the ground and it can no longer produce enough pressure to shape the solids. Due to the two factors, the disintegration of old urban context is inevitable.

In the book of *Collage City*, Colin Rowe cited two examples, Le Corbusier's Marseille Unité and Vasari's Uffizi Gallery, for justifying that there is an inverted relationship in figure-ground between modern architecture and traditional city block.<sup>18</sup> It shows the footprint of Unité fills in the courtyard of Uffizi, just like lock and key. Uffizi attempted to define the space and Unité attempted to occupy the space. Rowe wanted to prove a kind of contradiction between modernism and classical architecture. But it also can be used as a perspective to acquire a new balance of architecture. For example, in some cases, a more horizontal volume would be used to control the site instead of a vertical tower. The Rolex Learning Center in Lausanne, Switzerland,

was built up in a new-planning district. The urban context is very scattered and there is no continuous facade along the street. The architecture office, SANAA, therefore used a varying mass to carve out the outdoor space from a chaos background and diminished the boundary between the exterior and interior space. The architecture therefore acquires an open interior space and establish a modest connection with its context. On the other side, the yards or atrium which can be considered as a kind of void have actually reconstructed the figure-ground. The voids borrows the power from the varying mass and gives the architecture a very light volume and an independent identity.

### 3.2boundary

*"A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its presencing."* Martin Heidegger, *Building, Dwelling, Thinking*

From clothes, interior space to urban space, there are several boundaries surrounding a body. And there are also various ways that boundaries can present themselves. The solidity or transparency of the boundaries make the space appear isolated or as part of a more comprehensive totality.<sup>19</sup> Therefore, a boundary can be either soft or hard according to its degree of openness and diversity. A soft boundary can be realized by a spatial richness or clear orders. In contrast, a hard boundary

<sup>17</sup> Rowe, Colin, and Fred Koetter. *Collage City*. Cambridge, MA: MIT, 1978. Print. P62

<sup>18</sup> Rowe, Colin, and Fred Koetter. *Collage City*. Cambridge, MA: MIT, 1978. Print.

<sup>19</sup> Norberg-Schulz, Christian. *Genius Loci: Towards a Phenomenology of Architecture*. New York: Rizzoli, 1980. Print. P63



Fig. 17 (above)  
The stairs and entrance of an apartment in LiMa housing.

Fig. 18 (left)  
The facade along the street of Herman Hertzberger's LiMa social housing in Berlin.

usually reveals a distinctive difference, a clear separation or a continuous interface without any chance for activities. Soft boundary is helpful for architects to build open space and a vibrant community. For instance, the facade along the street is the interface for pedestrians where they can interact with the architecture. As Jan Gehl says: *"This is where city meets building."*<sup>20</sup> The ground floor of buildings is decisive for creating an open atmosphere in urban public space. Transparent windows of shops can provide rich visual information for pedestrians; the seats of outdoor cafe can hold people to appreciate their city and the gardens in front of houses add more living scenes for the street. Thus the buildings are no longer isolated objects, each building would contribute a part of its space to the city. As a reward, single building benefits from the improvements of urban public sphere.

Furthermore, the establishment of soft boundary also creates a more positive space between two realms. Based on his thinking about social behavior, Herman Hertzberger's housing design projects use a series of soft boundaries to add the possibilities of social activity. LiMa Social Housing project in Berlin, for example, uses different types of public space, such as open entrances, transparent stairs and distributed balconies to encourage the tenants to meet and communicate with each other. Hertzberger carefully arranged the orders among different public space. Each of them locates in a position which can spatially influence one another. While people are approaching

to the entrances, they will be welcomed and introduced by the balconies above them. The stairs are naturally extended from the road outside to interior space. On the entrance of each apartment, there is a glass door outside and a solid door inside. A narrow but friendly space is setting between the two doors for placing flowers or greens, which creates a view that can be shared with the neighbors passing by the stairs. In Hertzberger's work, the transparency of border represents on many levels. Although the architecture still works as a shelter for protecting the private sphere, there are definitely more types of space between urban street and each housing unit.

### 3.3 the place/locus

Both man and animals seek shelter, a place to store things, and a micro-climate, only man has a spiritual aspect.<sup>21</sup> In ancient Roma, people believed that every independent being has a spirit to preserve it, the Genius Loci. In China, it is an annual event to sacrifice the gods of gate and stove, by which people would pray for good luck and wealth. Martin Heidegger believed that the nature of dwelling exists in oneness of four, sky, earth, divinities and mortals.<sup>22</sup> In many aspects, people can perceive the cultural meaning in different types of dwelling

The wish to create a locus cannot directly produce public space.

<sup>20</sup> Gehl, Jan. *Cities for People*. Washington, DC: Island, 2010. Print.

<sup>21</sup> Rapoport, Amos. *House Form and Culture*. Englewood Cliffs, NJ: Prentice-Hall, 1969. Print. P41

<sup>22</sup> Heidegger, Martin. "Building Dwelling Thinking." *Basic Writings: From Being and Time (1927) to The Task of Thinking (1964)*. New York: Harper & Row, 1977. N. pag. Print.





Fig. 19  
VM Houses designed by PLOT ( BIG and JDS) in Copenhagen, Denmark. Balconies here are designed for visual communications between neighbors.



Fig. 20  
The town hall in Säynätsalo, Finland, designed by Alvar Aalto

However, locus aims at giving the meaning for locations. In addition, as one perspective of architectural thinking, the locus can be a kind of relationship between a specific location and the building that are in it.<sup>23</sup> Thus design can be interpreted as the visualization of Genius Loci.<sup>24</sup> During this process, designers' comprehension about people and environment will be eventually projected on their works. For example, Norberg-Schulz once referred to Dipoli, the conference center located in Otaniemi, as an architecture that " *reflects the dream of people who live in forest*" and " *to gain his end he (Reima Pietilä, the architect of Dipoli) used a new kind of topological space which visualizes the structure of the Finnish landscape.*"<sup>25</sup> In a way, the visual similarities between the Finnish relief and the architectural forms of Dipoli justify the influence of Genius Loci. Generally, in Scandinavian housing, the public and private space can be presented in extreme ways due to the special climate there. Days in winter are cold, dark and short. People require their homes as solid shelters, which can provide warm and protection. On the other hand, mild and long days in summer attract Scandinavian people to go outside. One of the solutions might be the balconies are usually very open and transparent. In many cases, they are even designed for visual communications between neighbors. (See Fig.19)

Alvar Aalto once described the problem of spatial design as one of twisting and turning the building's facades to create positive exterior space.<sup>26</sup> The town hall in Säynätsalo keeps the same

natural materials(e.g. bricks and timber) on interior and exterior elevations. It gives the building a warm sense and it implies a solid feeling of protection. On the other side, people are also desire to communicate with their surroundings. The yard works as a space container, which bring the world outside to the interior space. The space there runs like water, the yard gathers the voids and distribute it into the interior and exterior area, which creates a flowing and integrated visiting experience. So the space for people actually can be understood as a connection between interior space and exterior space.

23 Rossi, Aldo, and Peter Eisenman. The Architecture of the City. Cambridge, MA: MIT, 1982. Print. P103

24 Norberg-Schulz, Christian. Genius Loci: Towards a Phenomenology of Architecture. New York: Rizzoli, 1980. Print.

25 Norberg-Schulz, Christian. Genius Loci: Towards a Phenomenology of Architecture. New York: Rizzoli, 1980. Print. P200.

26 Trancik, Roger. Finding Lost Space: Theories of Urban Design. New York: Van Nostrand Reinhold, 1986. Print. P100

## 4. Spatial type study



Fig. 21  
Ponte Vecchio, the arch bridge over the Arno River in Florence, Italy

The study of spatial type aims at understanding principles instead of a simple collection of design cases. The analysis will not classify the cases according to their specific functions, regions nor times but rather on a method of typology. The study of public space will be based on three types, which are street, yard(terrace) and plaza. They are not necessarily functional public space but built up with a clear intention of adding communal activities. A type does not mean it has to be precisely imitated or duplicated. But it can use different forms to present itself. For designers, they can create different works based on one type. For example, even though the modes of living have changed a lot from antiquity up to today, but housing types have not been changed. Therefore the proposal here is to research several constant types of public space in housing. With the help of typology, it would be convenient to read the transformation of public space and observe how it works in

different circumstances. As Rossi said:" *type is the very idea of architecture, that which is closest to its essence.*"<sup>27</sup>

### 4.1 "street"

Street functioning as city's room has long been associated with our life. Ponte Vecchio, the bridge in Florence, perhaps it cannot be considered as an independent housing. Nevertheless, as the extension of its neighboring blocks, the bridge manifests a strong combination of different programs, such as street, commerce and housing. All the programs there are inner connected. In a way, it is a reasonable integration which can be implanted in many other places. But traditional cognition encountered the real

27 Rossi, Aldo, and Peter Eisenman. The Architecture of the City. Cambridge, MA: MIT, 1982. Print.



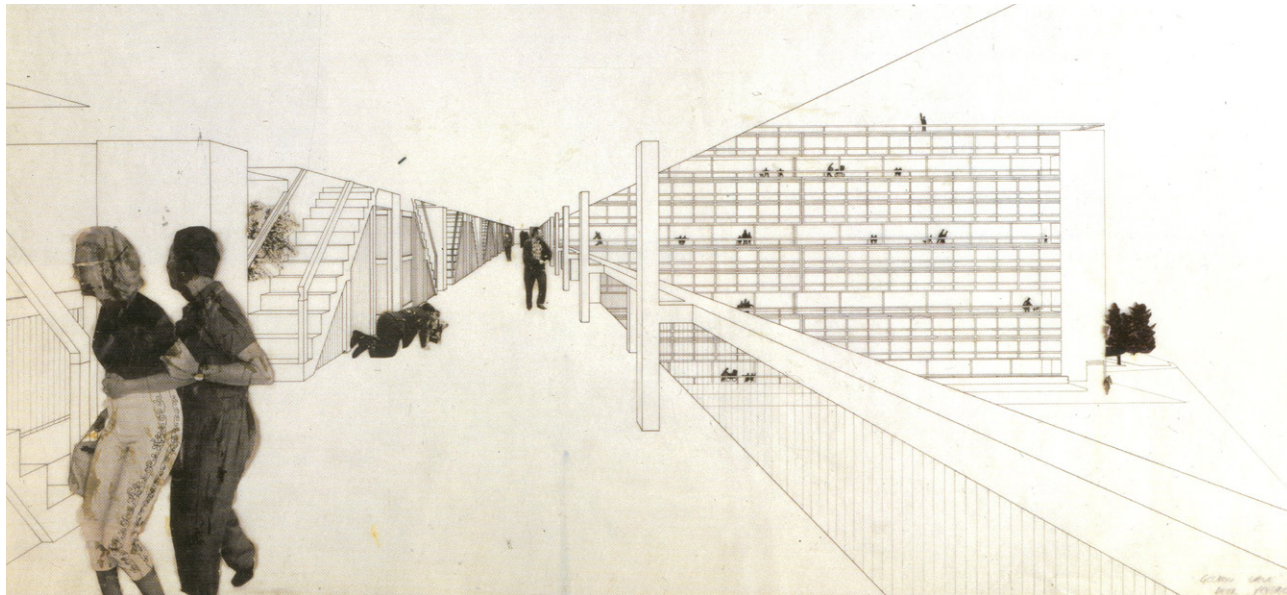


Fig. 22 (above)  
The design of Golden Lane Housing by Alison and Peter Smithson

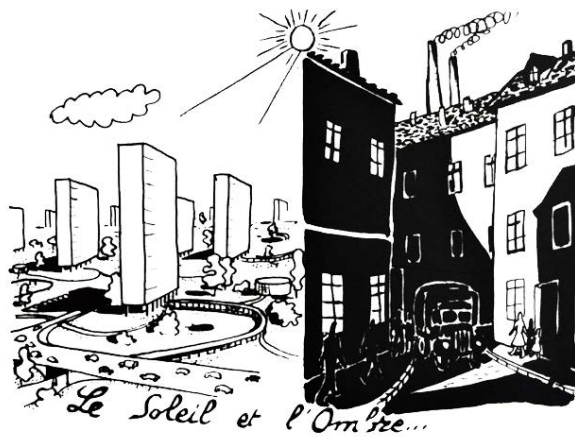


Fig. 23 (left)  
"On Sundays, when they are empty, the streets reveal their full horror." Drawing of Le Corbusier

challenge during the Modernism Movement. Le Corbusier once clearly expressed his idea about street:

*"The street consists of a thousand different buildings, but we have got used to the beauty of ugliness for that has meant making the best of our misfortune. Those thousand houses are dingy and utterly discordant one with another. It is appalling, but we pass on our way. On Sundays, when they are empty, the streets reveal their full horror."*

Obviously, modernism has a strong willing to promote a brand new plan to replace the traditional urban typology. Narrow and crowded street represented a backward life and a free moving plane was the medicine to cure the urban disease. However, decades later, people begin to realize that the importance of street had been neglected and original urban context would be easily jeopardized with such a design approach. Nowadays people notice that the close of shopping malls or department stores, the entire city reveals its full horror. Until the late of modernism movement, some architects' attempted to merge the heroic modernism dream with an urban contextual strategy.

Alison and Peter Smithson rediscovered the value of street which should have been considered as an active environment.

But the street here was already different from the concept of urban street. It became a type of public space in housing. In Smithsons' opinion, the point-blocks are so private that the tenants can hardly share the space and neighborhood. Their living units on high cannot connect with the events on street because of the difficulty of visual and voice interaction. Furthermore, they realized that the demolishing of slums would eventually lead to a breakup of the community. If the new buildings could not reorganize a communal life, it would be difficult to establish a stable connection with the new surroundings. In the Golden Lane Housing scheme, the architects introduced the "street in the air" along the facades as the public space. Based on the architects' imagination, these in-between space could afford children to play around and people to meet and talk. It manifested a compact association with social theory and it rebuilt the necessity of recovering the street as a stage set for the community.<sup>28</sup> However, in certain circumstances, similar design ideas might be realized in a very different way. Since 1960s, several modernism housing complexes were hunted by serious social problems. For

28 Rossi, Aldo, and Peter Eisenman. The Architecture of the City. Cambridge, MA: MIT, 1982. Print. P85

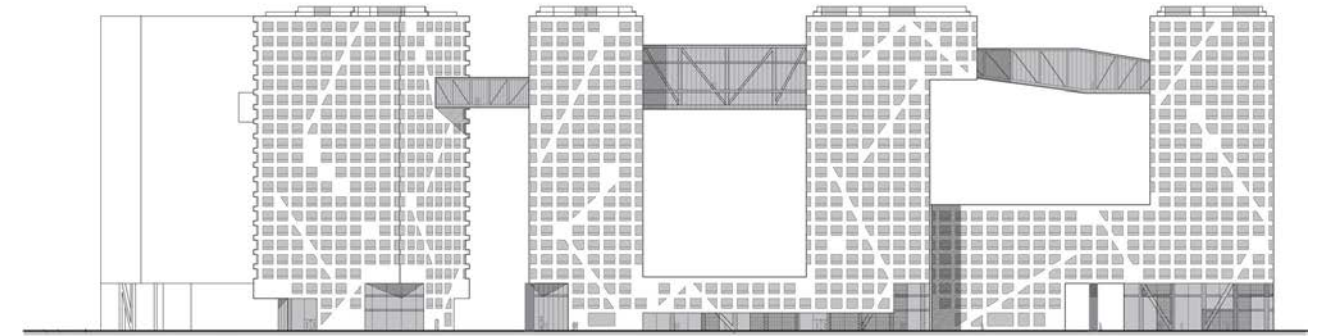


Fig. 24  
Elevation of Linked Hybrid designed by Steven Holl in Beijing, China.

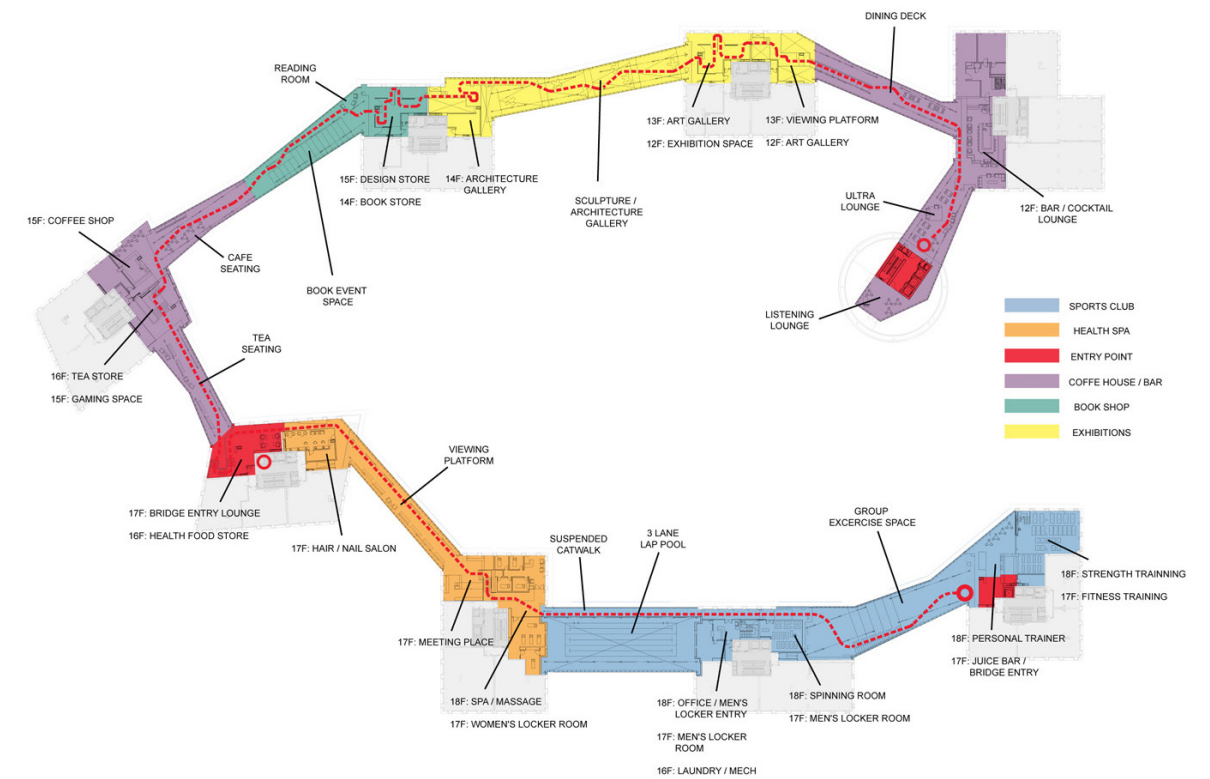


Fig. 25  
Programs in the linking air bridge. Linked Hybrid by Steven Holl in Beijing, China

example, in Pruitt-Igoe housing project designed by Minoru Yamasaki, its long common corridor did not become a communal space at all but rather an ideal place for drug dealing and violent crimes. Although its demolishing at last could hardly be attributed to the failure of entire modern architecture,<sup>29</sup> it at least justified that a housing complex was highly connected with its social background and architects are not in the control of whole system.

Linked Hybrid in Beijing is a housing complex designed by Steven Holl and built in 2010. The architecture is characterized

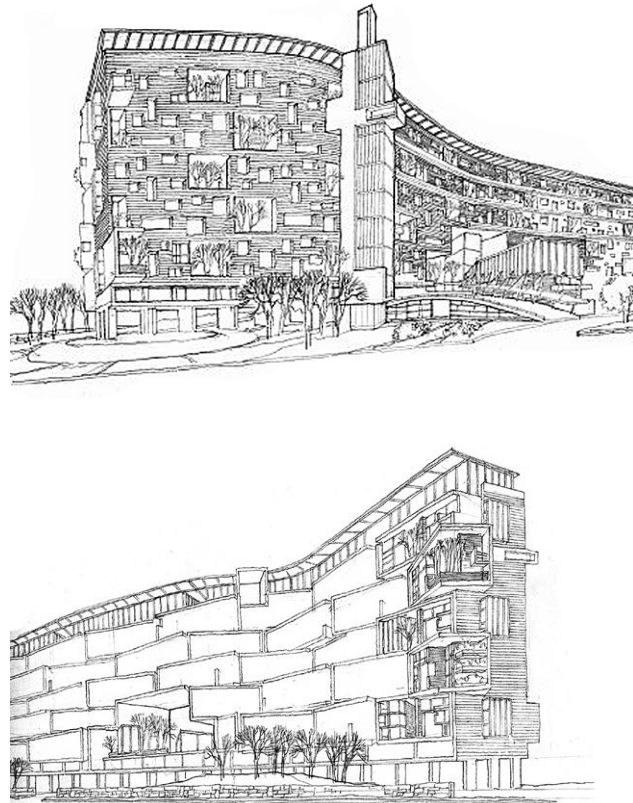
by its huge linking air street between the towers (See Fig.24), which can be considered as the one of the latest experiments of street space in housing project. As a response to the urbanization in China, it was given a hybrid identification that mixed a demand of higher density and the memory of horizontal urban context. The two-story linkage implanted in the air has a similar proposal with Smithsons, which aims at introducing the activities of street to living space. The mass of these high-rise towers therefore would be divided into two sections and the tenants who live in high can access to their public space in a faster and more convenient way. Although the complex still keeps a typical modernism footprint of point blocks, it has created a new configuration perpendicularly. There is a new layout of figure-ground in the elevations where the solids builds up an enclosed vertical connection around the voids. Furthermore, lifting the public space to the air also

29 Charles Jencks' famous manifesto about the exact time of the death of modernism when Pruitt-Igoe project was demolished. Jencks, Charles. The Language of Post-modern Architecture. New York: Rizzoli, 1977. Print.





Fig. 26, 27  
Qianjiang Times, housing project designed by Wang Shu and the architect's thinking about vertical yard in sketches.



avoids a repetition of using podium building as the border of the entire complex. It enable the architect to choose more flexible strategies to process the boundaries of the complex, which aim at building up a close connection of its surroundings.

Obviously, Steven Holl's urbanism thinking has several similarities to the architects in 1960s. However, unlike the public corridor introduced abruptly in Golden Lane Scheme, Linked Hybrid arranged a series of programs in the air bridges, such as gallery, swimming pool, bar, book shop, etc.. These programs define the functions of the place and hence they would prevent the linking space to be abandoned. Besides, the linkage itself actually is a two-floor block with varying interior space. Nevertheless, it is still questionable whether the linking area really supports urban activities or not. A real urban street cannot exist without a continuous facade. The linking space still belongs to the tenants there and it only can be considered as the extension of their own private units. As the pictures shown earlier, the housing complex is detached from the city. In all, it still can be considered as a valuable experiment which is another attempt to implant street into collective housing space.

#### 4.2 yard and terrace

Yard acts as a common space has a long history in both western and eastern world. Siheyuan, the Chinese quadrangle, was the basic unit of classical Chinese cities. In ancient Rome, a courtyard surrounded by columns was also the archetype of housing. In a way, courtyard houses or separation of domains are common in cultures which are both crowded and

hierarchic.<sup>30</sup> In ancient China, the urban public space was basically constituted by streets and public buildings such as Buddhism temples. The concept of square did not exist. Therefore, in a society which emphasized family values, the yard had a special position as the common space of whole family and the center of life. Once the society was updated, public space should have progressed simultaneously rather than just abandoned and forgotten. Qianjiang Times is a housing complex designed by Wang Shu containing several housing towers. The housing combines a thinking of vertical growth with traditional yard space. Wang Shu attempted to reconstruct the traditional yard life in a perpendicular and collective way. A common yard shared by four apartments can be used for planting greens and community activities. Due to the disintegration of traditional family structure, the old life style has been widely changed and forgotten. As Wang Shu said: "Perhaps people like to talk with their neighbors as they did in old times. I hope I can remind people their lost life style in their courtyards."<sup>31</sup>

Compared with other public space in housing, yards and terraces usually are in a smaller size and dominated by individuals. The public connection happens when these yards and terraces are arrayed and stacked. Sometimes they assemble a facade or even the exterior space of the building, which produces a more vibrant living scene. The architectural form has been understood

<sup>30</sup>Rapoport, Amos. House Form and Culture. Englewood Cliffs, NJ: Prentice-Hall, 1969. Print. P80

<sup>31</sup> "王澍：一个建筑师的理想与现实" Interview of Wang Shu: An architect's ideal and reality" China Network TV. CCTV, 25 Mar. 2012. Web. 23 Sept. 2013. <<http://news.cntv.cn/china/20120325/118549.shtml>>.

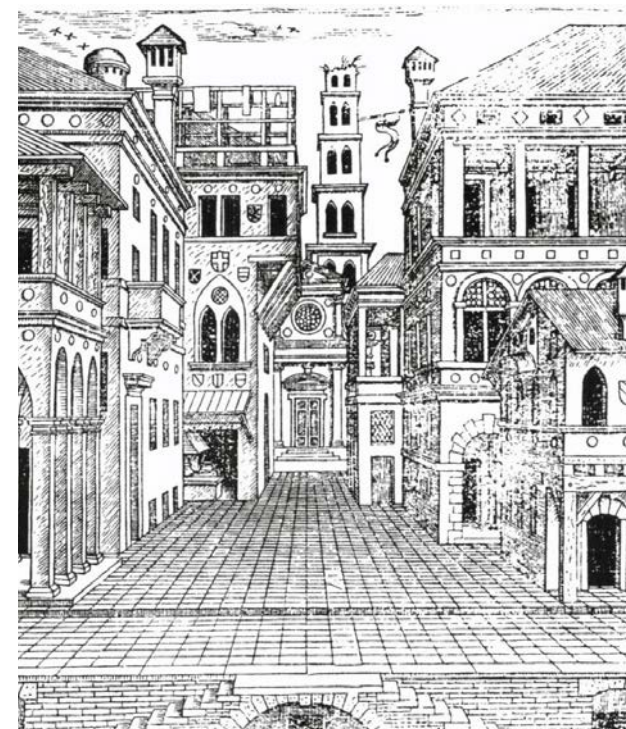


Fig. 28  
Comedy scene, Sebastiano Serlio

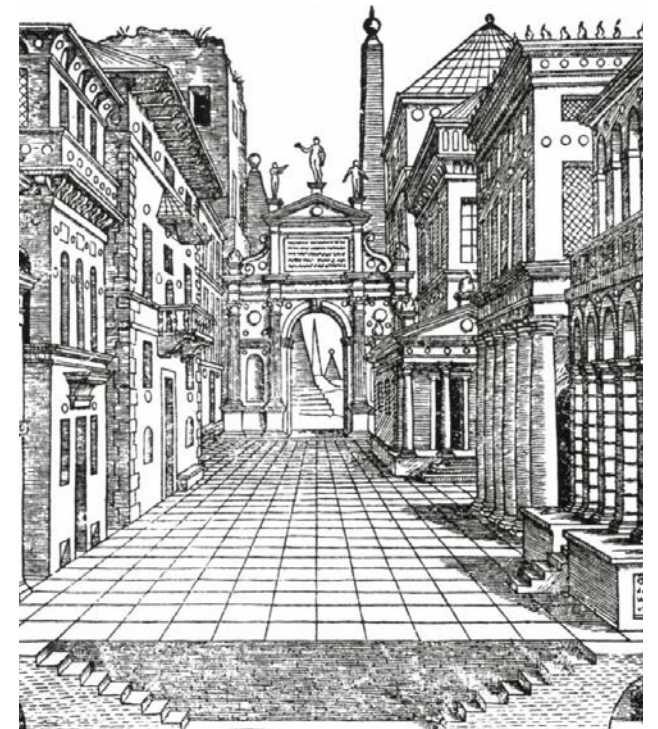


Fig. 29  
Tragedy scene, Sebastiano Serlio

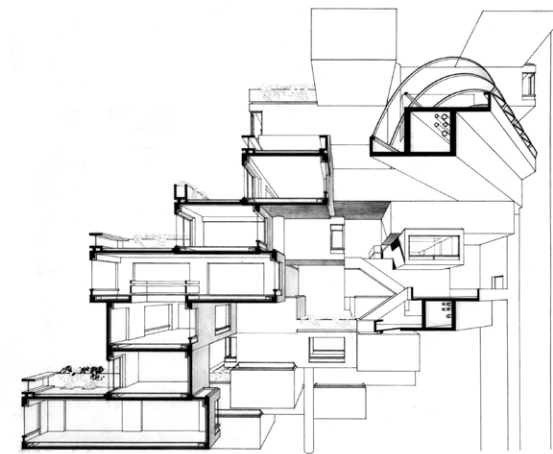


Fig. 30  
Habitat 67, a community and housing complex designed by Moshe Safdie. Montreal, Canada

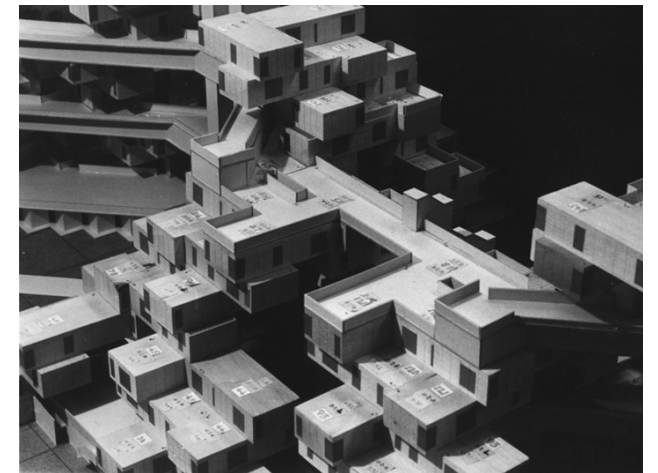


Fig. 31  
The model of Habitat 67

by architects long time ago. For instance, Sebastiano Serlio, the Italian architect in Renaissance, manifested the difference spatial atmosphere in his tragedy and comedy scene. With a clearer axis placed in the middle, the facades in his tragedy scene keep closed and calm. In contrast, a spatial richness and horizontal composition in the comedy scene can imply more possibilities of events. With a liberal composition in architectural mass, yard and terrace are usually implanted in housing projects to create a flowing continuation in exterior space. For example, Habitat 67, a social housing designed by Moshe Safdie, weaves the roofs, yards and greens together. Each living unit is stacked

one after another. The roof of an unit functions as the terrace another. Therefore, the design method transfers the architectural volume to various exterior space. These closed terraces builds a spatial connection instead of a physically common space.

#### 4.3 plaza

There are many forms of plaza in the world, the thesis would focus on the type which is a circular plaza surrounded by housing buildings. In several European historical cities, such as Lucca in Italy, the circular plaza is located in the city center. During a long time, the residential buildings that surrounded





Fig. 32  
City center of Lucca, Italy

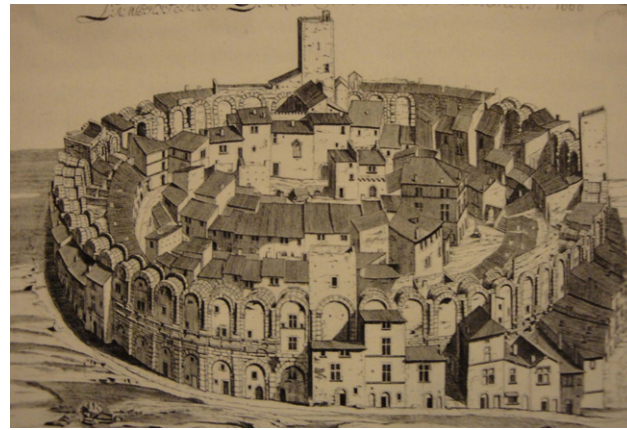


Fig. 33  
The arena of Arles in 1686. The arena was rebuilt for housing but still kept the exterior form.

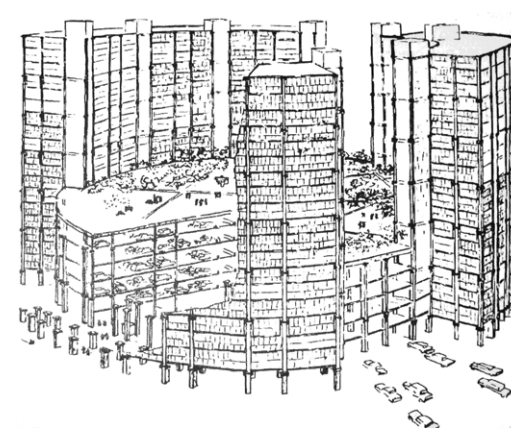


Fig. 36  
Louis Kahn's sketch for the Civic Center in Philadelphia



Fig. 37  
Tietgenkollegiet, a student housing designed by Lundgaard & Tranberg Architects in Copenhagen, Denmark.



Fig. 34  
The square in traditional Tulou



Fig. 35  
Tulou in Fujian Province, China



Fig. 38  
Modern Tulou designed by URBANUS, Shenzhen, China



Fig. 39  
The public space in modern Tulou, URBANUS

the little plaza prevent the erosion from other urban artifacts. It is not only the public space for the housing buildings but also for the whole city. Within the cylindrical shape, the space above the plaza is also meaningful and functional. It provides a distance to see all your neighbors and the view is inescapable and enclosed. If there were a chance to see the world out of the cylinder, it would be pure exterior space. The housing itself also exists as a strong and clear boundary. This kind of combination is a spatial prototype which can be observed in many cases.

Another concept of using cylindrical shape appears in Louis Kahn's design for the Civic Center in Philadelphia, 1952. The central part surrounded by circular housing buildings contained a huge garage and the roof space of these docks was used for a public garden. Similarly, in China, an old type of collective housing named Tulou also has a similar appearance and spatial layout. With a purpose of self-protection and defensive appeal, local villagers build and live in huge cylindrical housing buildings. In the middle of Tulou, the square is used for communal events and common activities.

Based on a traditional type of Tulou, an architecture office in China, URBANUS, attempted to discover its contemporary applications. They created a modern version of Tulou. It is an economic housing for youngsters who may just graduate from universities or immigrant workers who just arrive the city from countryside. Like its traditional version, the square inside functions as public space. Although the architecture office added another rectangular housing building in the middle for improving the density, the design still keeps the ground level open. One part of the building is open for the city. There are several commercial functions such as shops, restaurants and barbers at the ground level. With a circular footprint, Tulou is easier to establish a friendly connection if it locates in a scattered urban context. For URBANUS, modern Tulou might be a prototype which can be implanted in contemporary Chinese cities.

The circular plaza often functions as a powerful spatial type. It dominates local urban context or becomes the center of a huge architectural volume. People built up the arena in Lucca in

Roman times and it gradually evolved to a housing community during a thousand years. The open space eventually became a market and the seats surrounded it were rebuilt as housing blocks. Meanwhile, the arena survives in history and eventually becomes the generator of local urban context. Both of Tulou and Louis Kahn's civic center are huge independent masses. The square in Tulou naturally becomes the center of settlement and it also can be used for spiritual place. The square provides the space for family temples in Tulou. Similarly, in Europe, a church might be placed in the center of an amphitheater which has been rebuilt as housing. In a way, they are very practical examples of Genius Loci. Kahn's concept about the civic center is more ambitious, many layers of dock constitute the middle part of the building. In many aspects, the square helps to build an independent community which works like a small city. With the support of public space, a cylindrical collective housing becomes a more comprehensive totality. It is a real free-standing building.





## 5. Project

The rapid urbanization makes the old towns in Chinese cities eventually have to go through an inevitable renewal. Except a brutal demolishing and expansion, it will be more appreciated if there is an approach of design which respects the original urban typology and pays more attention on public space. Meanwhile, the leading architecture practices who are working in China constantly propose their urbanistic thinking for their Chinese clients, which have left China a lot of positive references about public space. However, in realities, architects' work cannot be really independent. In the opposite, architects are always easily effected by clients, programs or regulations. All in all, the project will concentrate on the production about public space in residential environment.

### 5.1 Super Public, the concept

Compared with the existing urban space, Super Public means public space is the key point that running through the whole design process. Super Public also is an assumption that the proportion between public and private space will be totally inverted. It is a scenario which does not necessarily connect with a certain scale. Super Public will create a spatial mirror image of the reality. Meanwhile, it also attempts to answer a series of questions, such as how extremely public that the situation can be? What if the need of public space can be totally satisfied or visualized? How people live in a condition of Super Public? Therefore, the project would focus on different types of public space an their relationships with other urban programs. However, it will also concentrate on a full usage of public space. Even though the public realm has been widely enlarged, it does not mean it will be treated as empty or useless space. The design will avoid to make scatted space and the whole area will be considered as a totality.

The project is a schematical design which can be appropriated by practical projects. It is more like a collective thinking about the public space in residence. Space will be the main

characteristic that the project attempts to present. From public urban space to living unit, different types of public space can be represented in many levels. A walking street might be public for a city. A common yard could be public for a community and a terrace might be public for people in a single building. Although the programs might be different from one to another, the public space can be created in various ways.

### 5.2 context analysis and site description

#### 5.2.1 the city, a briefly review

In 14th century, Nanjing was the capital of China. Literally, Nanjing means “southern capital”, like Beijing is “northern capital”. In 1386, a tall and thick city wall was built as military fortifications which also represented the status of the city. The wall defines the border of the city during a long period of time. Gradually, with a growing of population, the city began to expand across the wall. A residential area gradually became the new boundary of the city in decades. A vibrant street life has replaced the cold and solid military facility on the eye level.

#### 5.2.2 local urban context

The site is located the south part of Nanjing and it is close to the Qinhuai river and the city wall. The site was a housing area that have naturally developed from the city gate. During a recent urban renewal plan, this old housing area has been totally demolished and now there are more than 10 newly built housing towers. On the eastern edge of the site, there is an avenue that leads to the city gate. On the south, there is still a large area full of old one-story buildings close to the site. But very soon these buildings will also have a fate of demolishing in the future.

Nowadays the city gate, Zhonghua Gate, has no connection with its military function. It becomes a purely architectural form. For a long time, the gate is the only path to enter the city in the area. The city gate is the root that triggers the growth of the residential area and it is also a radiant point that shapes the typology of the

Fig. 40  
A historical map of Nanjing in 1943.



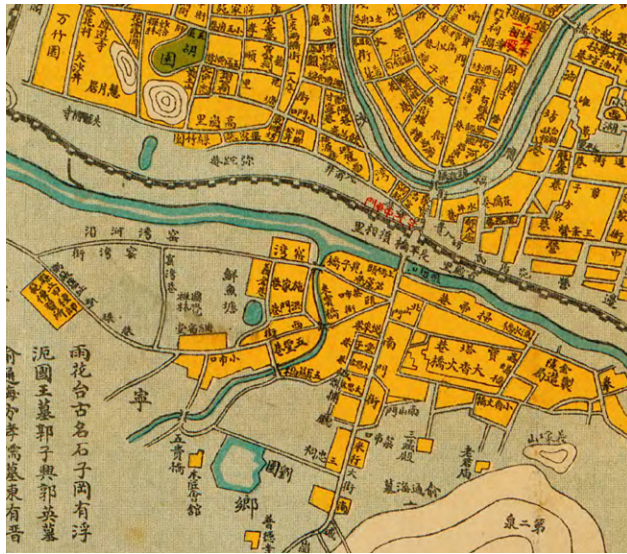


Fig. 41  
Historical map of Nanjing in 1928.



Fig. 42  
Historical map of Nanjing in 1943.

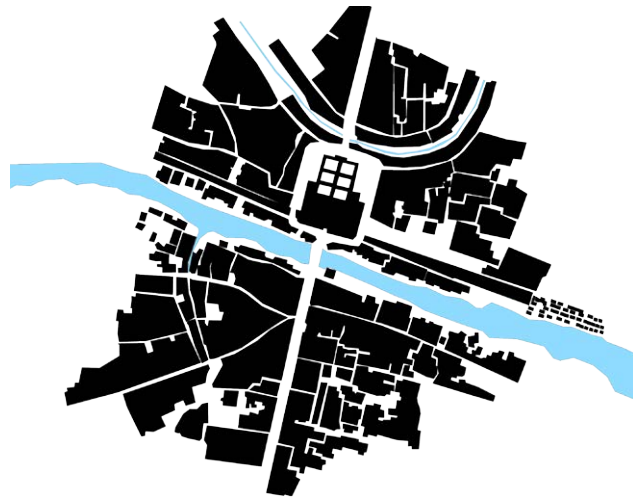


Fig. 43  
The satellite photo of the site in 2013.

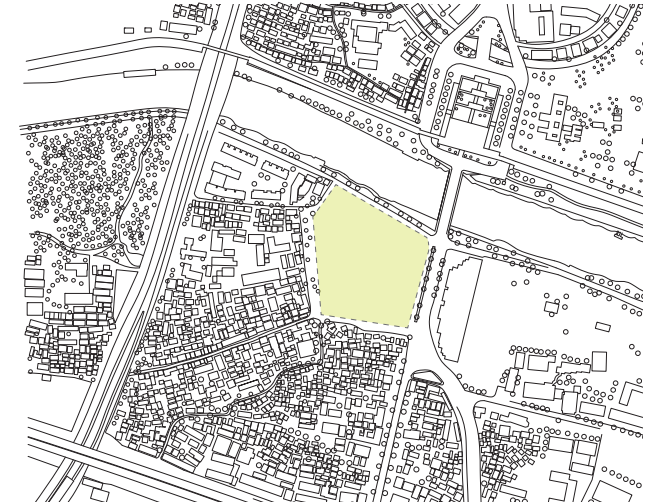


Fig. 44, 45  
The building control line of the site filled with yellow color.

streets. As Aldo Rossi mentioned, a monument will increasingly diminish the importance of the plan and the overall pattern of the city.<sup>32</sup> In a age that did not have a clear urban planning at all, the city gate had functioned as a decisive factor which shaped local urban context for long. However, the large volumes of today's housing towers sabotage the importance of city gate in urban typology and enable them do not need to follow the original urban context.

#### 5.2.3 the existing housing complex

The existing complex dominates the site and excludes many urban functions out of the area. Since original street net has been razed up, there is no space on ground level that can be used for communal activities. Meanwhile, the landscape and the space for greens is very limited. Only the buildings along the main street touch the circumstance outside and they are the only parts that contribute to the city. The open plan around the isolated blocks cannot be organized into functional programs and most of it has been used for car parking. Actually the whole area has been separated from the rest of the city.

Before the old buildings were demolished, this original street net was a clear hierarchy system. An avenue starts from the gate and these smaller alleys like branches extended to the housing area. Nowadays, Changgan bridge, which is the bridge in front of the city gate, still works as the only route across the river. The old street network used to produce a sense of direction leading to the bridge. However, obviously today's homogeneous city grids in this area has lost the characteristic in urban typology. The record of city's expansion was erased by the new blocks.

Because of the huge difference between old and new buildings

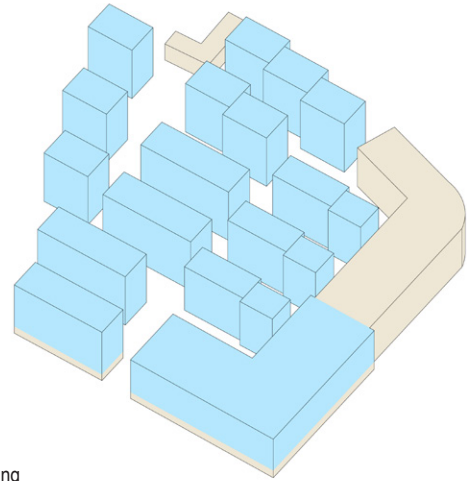
in China. In many cases, the architects also have to update urban grids when they process new designs. As we concluded earlier, the original urban typologies are rarely considered. So it is one of the principles of the design phrase to study the original urban typology. According to historical maps, the new design can be considered as an evolution in urban typology. The design aims at finding a continuation rather than fitting itself to a rectangular grids.

#### 5.2.4 traffic

With the disappearance of the old street network, most of the programs that happened on streets are now condensed in the high-rise blocks. In the housing complex, the open plan on ground level has replaced the narrower streets. For pedestrians, the area has excluded any urban traffic. Therefore, the main traffic lanes was enlarged for containing more cars. As a result, the main street became so wide and the two sides of the road cannot build any interaction. Therefore, it will be another principle in the new design that a new street net will be founded on the area.

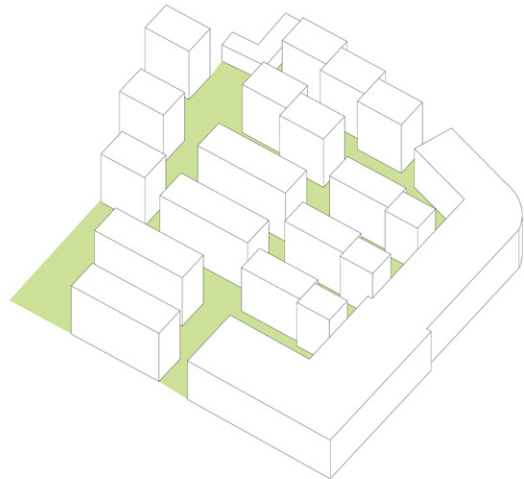
<sup>32</sup> Rossi, Aldo, and Peter Eisenman. *The Architecture of the City*. Cambridge, MA: MIT, 1982. Print. P92



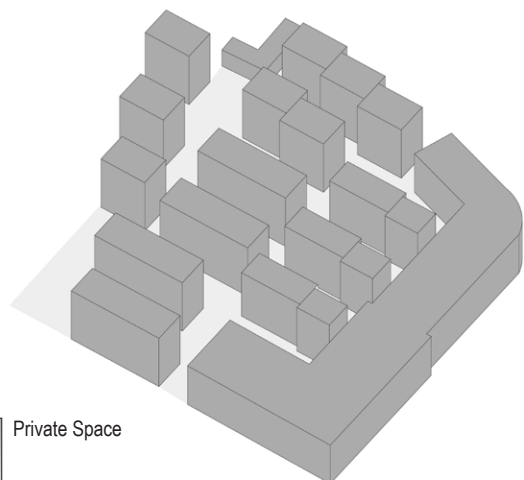


■ Housing

■ Commercial & Communal Space



■ Greens



■ Private Space

■ Public Space

**Fig.46 Diagram: program distribution**

The diagram divided the space of existing complex into two categories. As the typical outcome of brutal urban expansion, there is no any architectural or urbanism thinking in the existing housing complex. The site was just jam-packed with housing towers and the typology was a simple and functional division according to rectangular grids. Merely the blocks on the border responded to local context in a very clumsy way.

**Fig.47 Diagram: the vanished landscape**

There is so limited space can be used for landscape and only reserved on the ground floor in the complex. Besides, if we exclude the area occupied by roads and parking space, the actual space planted with greenery even could be neglected.

**Fig.48 Diagram: Isolated buildings**

The gray color represents the openness level of space. There is almost no transition from housing unit to urban space. In the housing towers, there is no public space. Because of the short distance between these buildings, the acquisition of sufficient sunlight is questionable.



Fig. 49  
The sketchy 1:1000 physical models about primary ideas and concepts





Fig. 50



Fig. 51



Fig. 55



Fig. 56

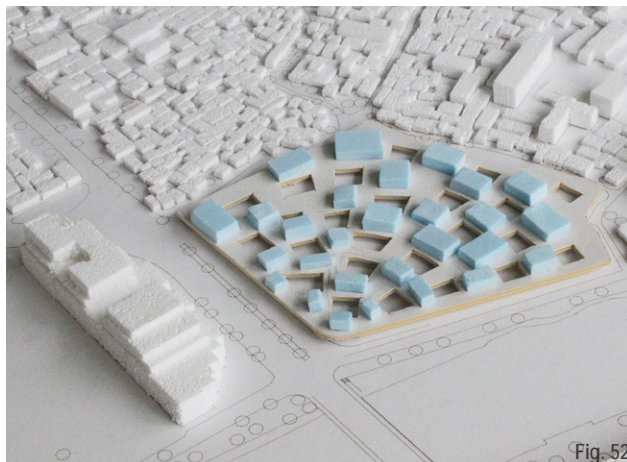


Fig. 52

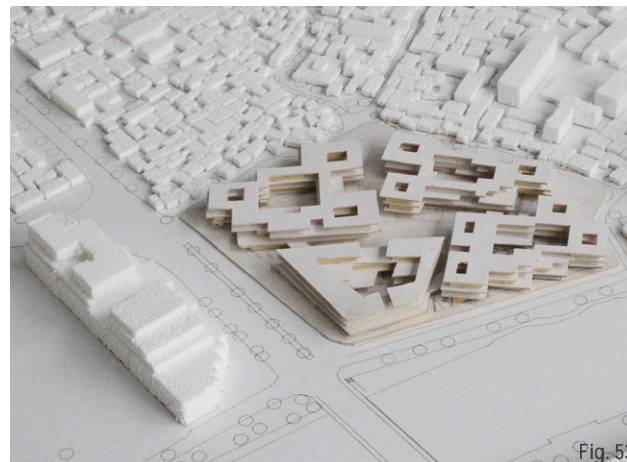


Fig. 53

about if there would be enough sunlight on the ground level. This form might cast too many shadows and it did not respect original urban typology at all. After that, Fig. 53 was a composition of three varying forms and Fig. 54 shows a huge mass that dominates the whole site and creates a continuous cave space at the bottom of the volume. After using several models to test quick and rough ideas, it gradually became clear that the design was not searching a specific form, but a structure of space. The next sketch model chose the most basic shape: cube, then a composition of cubes with a low-rise horizontal structure. From Fig. 57 to Fig. 59, the images show a process of testing different proportion and coordinating with local urban typology.



Fig. 57

### 5.3 mass study: conceptual models

During massing study, a series of physical models will be used for testing my primary ideas and concepts. In a scale of 1:1000, these models represented several different conceptions about public space. Fig. 50 displays the old housing buildings before the demolishing. And Fig. 51 shows the existing housing complex. These two models were made for a better understanding of the difference between old and new buildings. The idea of the model in Fig. 52 was to use a unified pattern which covered the whole area. The pattern radiated from the corner near to the city gate. The new building was divided by grids and some parts can be open up and function as atrium or landscape. The other parts were closed as interior space or extruded as housing area. Somehow, the idea was skeptical



Fig. 54



Fig. 58

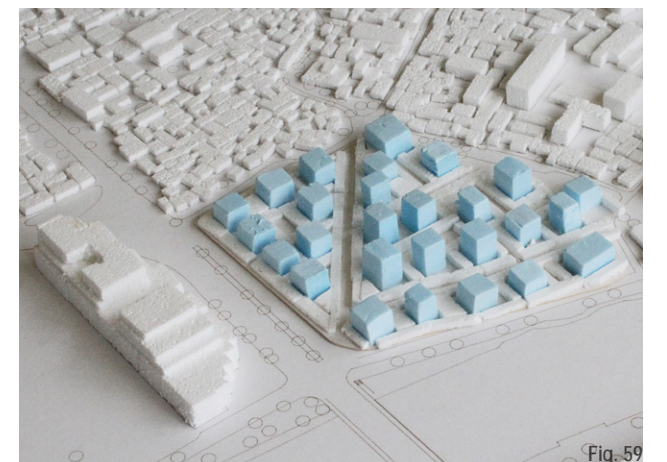


Fig. 59





Fig. 60

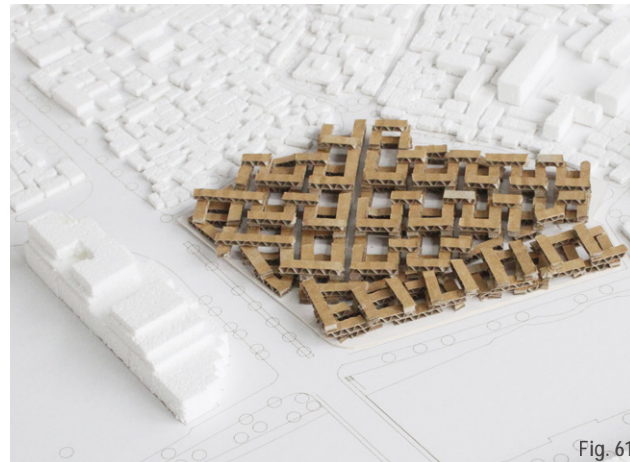


Fig. 61

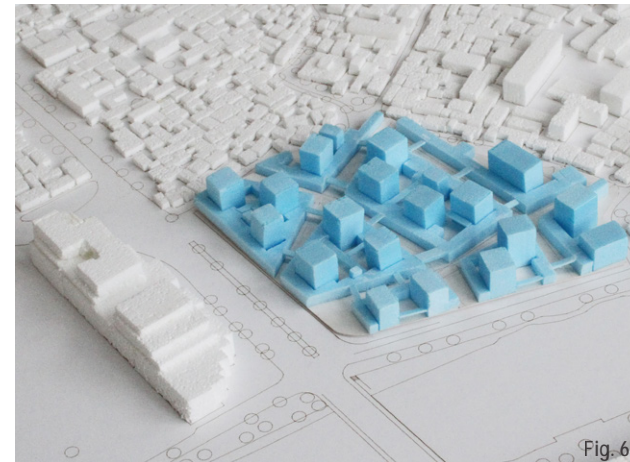


Fig. 65

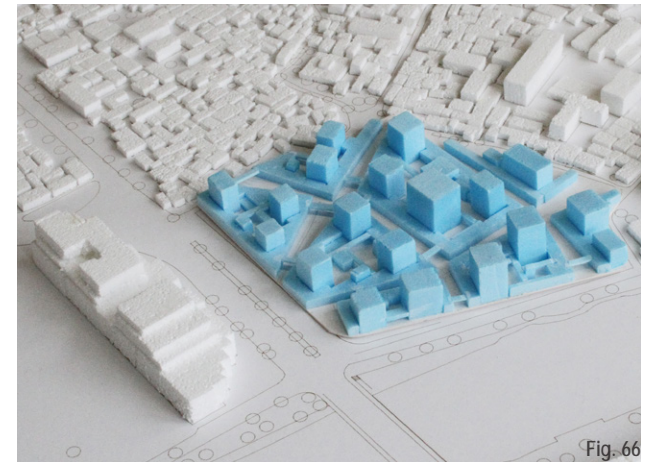


Fig. 66



Fig. 62

The two models in Fig.60 and Fig.61 attempted to use double layers of small units to assemble a new urban typology. Somehow, they were not developed further because it was not a new concept and some parts were quite similar with Moshe Safdie's housing in Canda. Following the "cube" concept, the models in next three images continued to test different layouts of street plan. Their task was to examine the layouts that divided the whole site and the arrangement of streets.



Fig. 67



Fig. 68



Fig. 63



Fig. 64



Fig. 69

From Fig.65 to Fig.69, a group of models were used to test the different compositions of building blocks and low-rise decks. The streets were not parallel any more, they are angular to each other. Therefore the distance between the two facades along the street also kept changing and it would create more varying spatial types. Since the model in Fig.68, the material also changed to cardboard for getting a more precise result. Till this step, the main idea of the design was basically fixed.





Fig. 70



Fig. 71

#### 5.4 schematical design

After all the concept models, a system that contained the housing blocks and one-story decks was chosen to the further design development. As the conclusion earlier, one purpose of the project was to test and research various public space. Therefore, it kept a more simplified form compared with ideas at beginning. The housing block has 8 stories and keeps a height of 24 meters, which is the maximum distance for setting a visual connection from the roof down to the street level. The low-rise deck would be used for retail shops, libraries, restaurants, bars and kindergartens. The ground floor has two identities: urban and nature. The open space was both prepared for activities and plants. The combination of vertical housing block and low level deck can acquire flexible densities, which makes the concept easier to be used in other places. Because in many cases,

high density is a realistic demand in China's urbanization. It is a community designed for low speed. Most of the space belong to pedestrians and there is an underground garage for vehicle parking. In the middle of the roads there will be greens and space for people to have a rest. It also can be the extension space of cafe and restaurants nearby. The upper floor is a landscape level and activity space owned by inhabitants there. The second level of the deck and the connecting bridges are only accessible from the blocks, which represent a continuation of street that can be introduced into the housing complex or even blocks. The deck also provides space for landscape and greens and its various dimensions provide possibilities for different events.

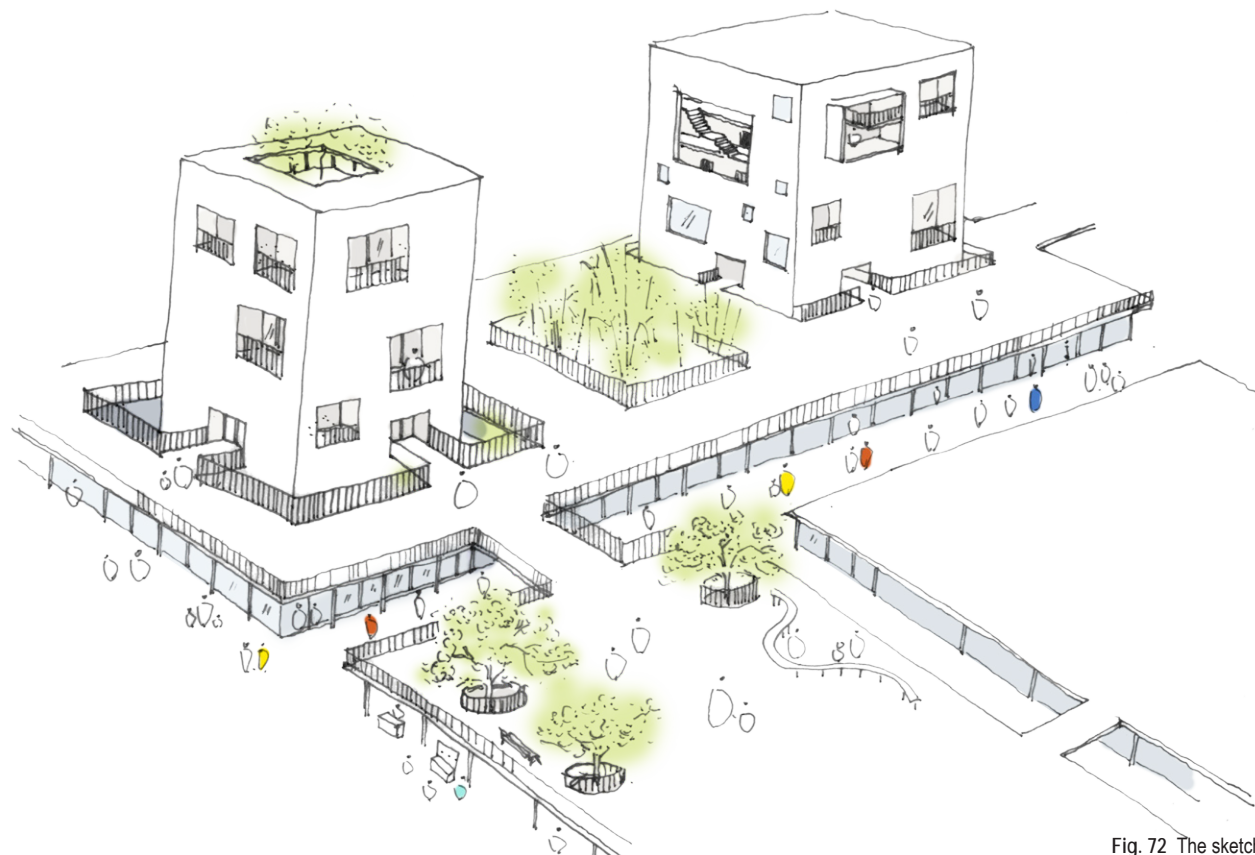
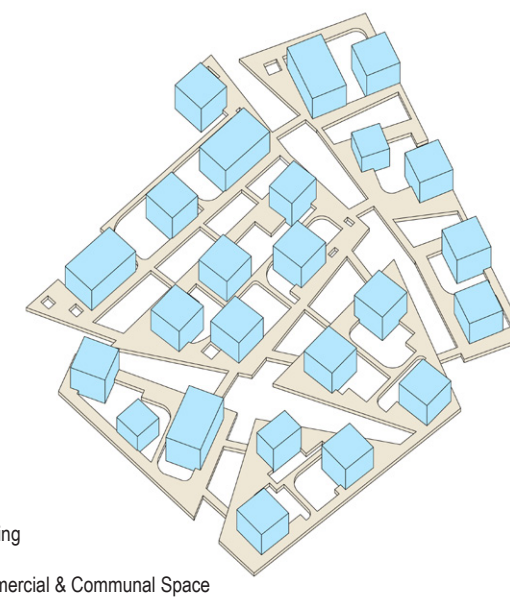


Fig. 72 The sketch



Housing  
Commercial & Communal Space

**Fig.73 Diagram: program arrangement**

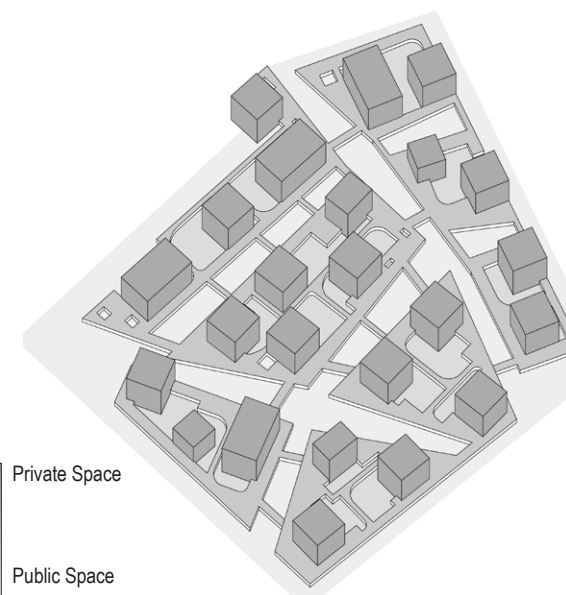
The plan respected the original typology in this area. The commercial and communal programs were distributed in the low-rise buildings. The bluish blocks also contains various types of public space.



Roof Garden  
Landscape  
Courtyard Greens

**Fig.74 Diagram: the distribution of landscape**

The design has fully considered the space for landscape. The landscape was also divided in several levels which belong to different public realms. The green courtyard belongs to the whole city. The landscape on the deck is only accessible for the people who live in the complex. The roof garden and the distributed greens inside the buildings are close to the inhabitants who live in that single building.



Private Space  
Public Space

**Fig.75 Diagram: the levels of public space**

The design creates several levels from urban space to housing unit. The streets belong the city and they are accessible for everyone. The courtyard between the housing blocks are free for people to enter. With several entrances, the atmosphere in courtyards are more calm and closer to nature than the streets outside. The roof level of the low-rise buildings only belongs to the inhabitants who live in the complex. It is a place where people can have various communal events and activities.





Fig. 76 1:1000 physical model



Fig. 77 Site Plan

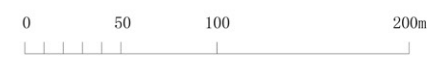






Fig. 78 Bird View





Fig. 79 Ground Level Plan



Fig. 80 Second Level Plan





Fig. 81 Third Level Plan

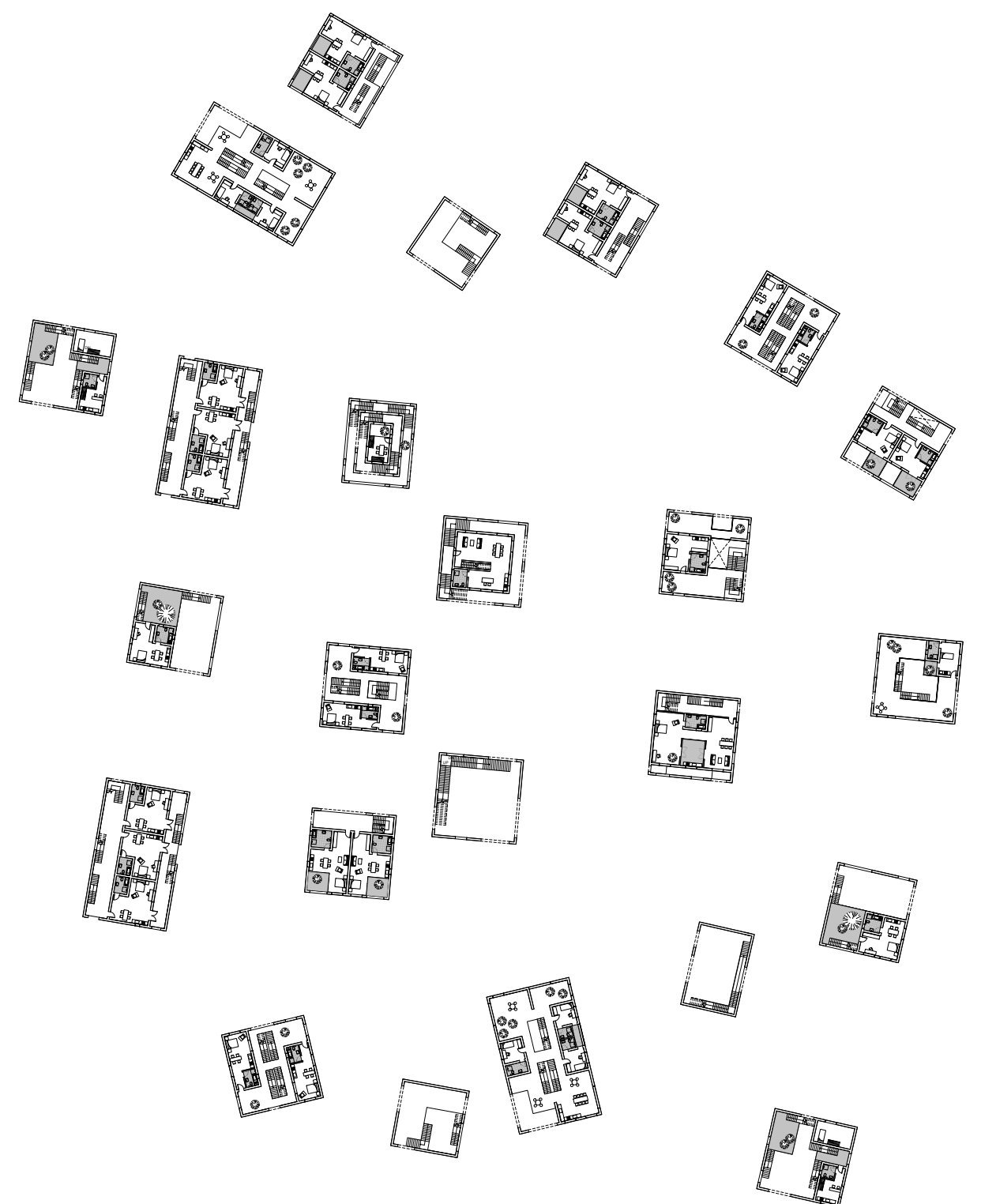


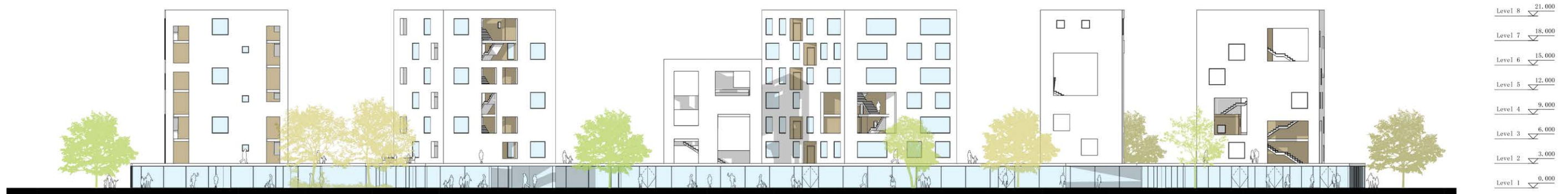
Fig. 82 Forth Level Plan



East Elevation



North Elevation



South Elevation

Fig. 83 Elevations





Section A-A



Section B-B



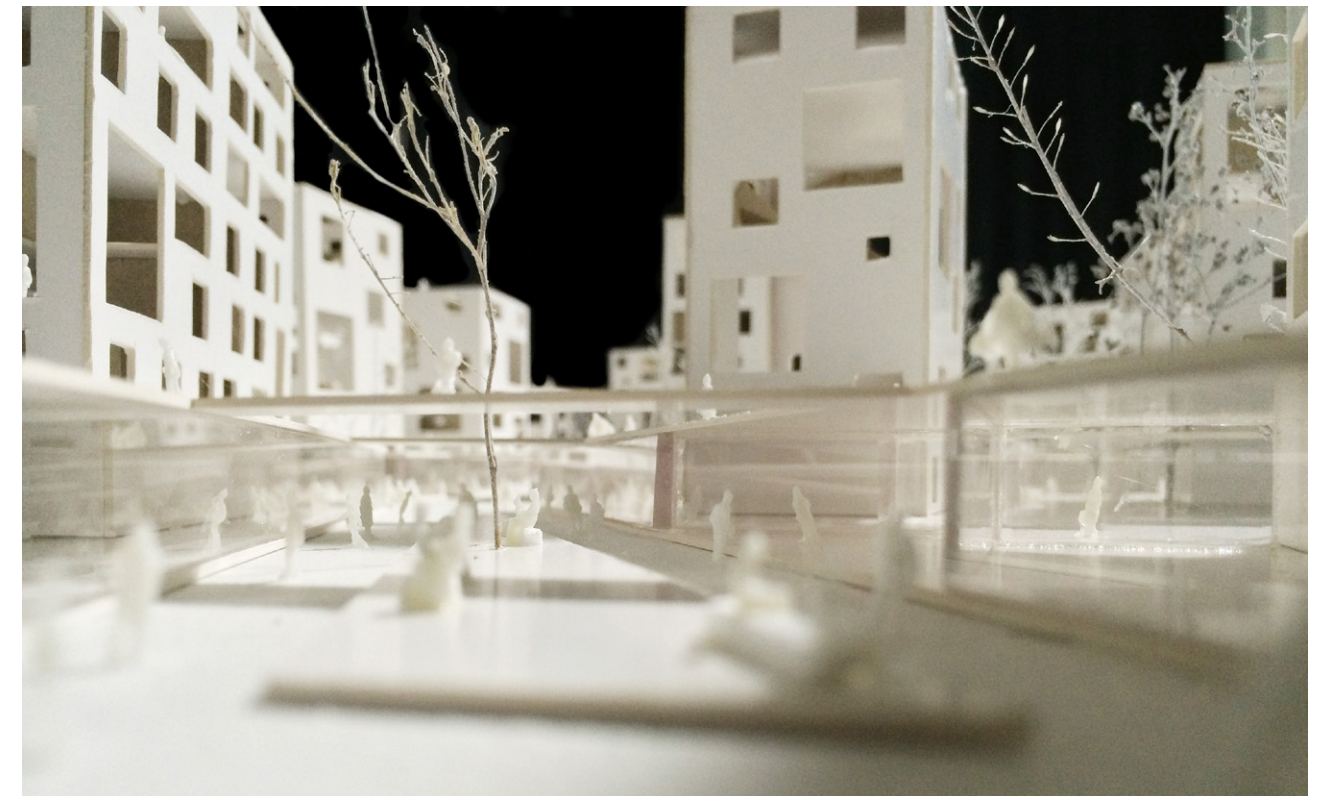
Section C-C

Fig. 84 Sections







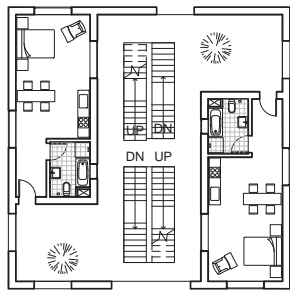






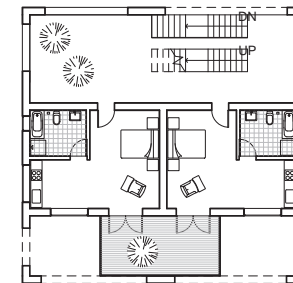
### 5.5 building list

The project is a collective thinking about public space. There are many concepts existed in different housing blocks. An overall drawing or rendering would be too rough to display the space in smaller scale. This part is a list which represent the spatial types and layouts.



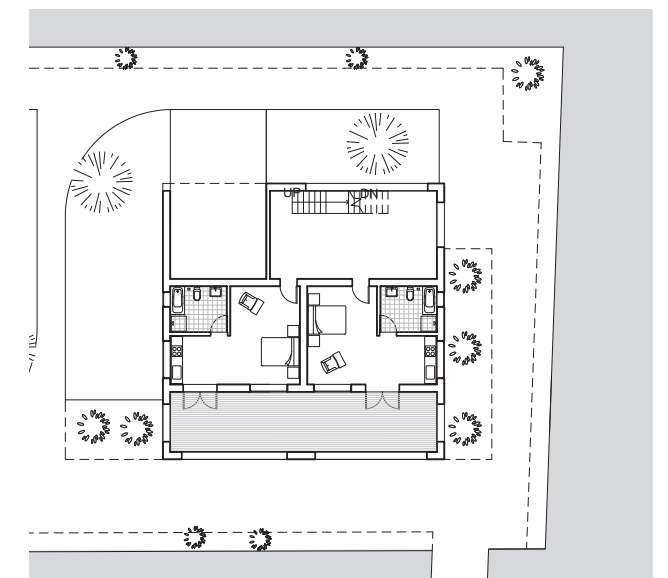
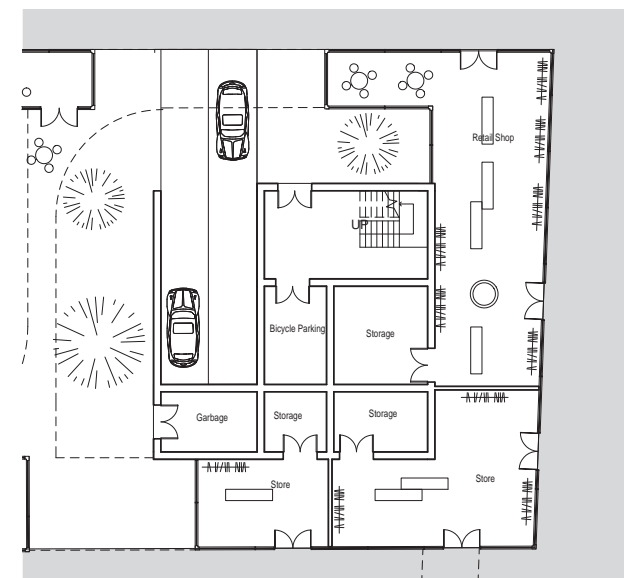
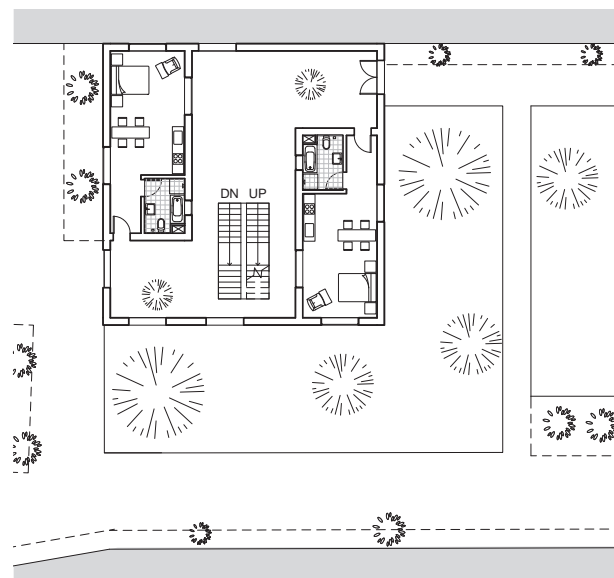
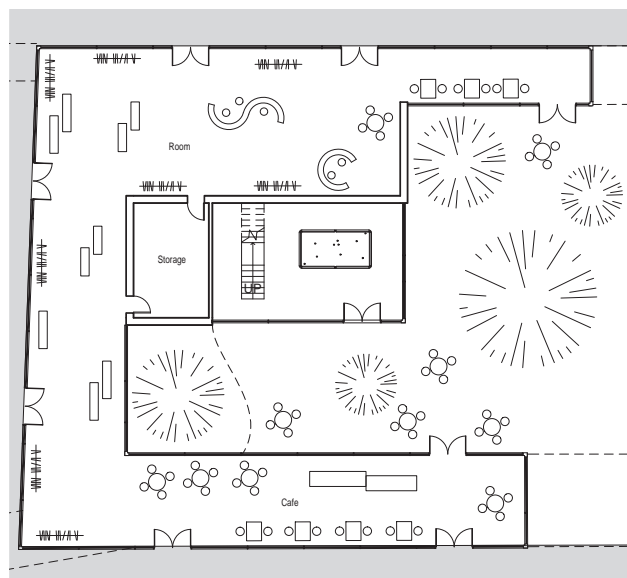
#### No.1 Curtain of stairs

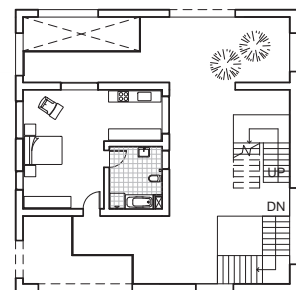
There is a common room at the entrance which provide the possibilities to know all your neighbors. The long scissor stairs in the center of the building divides the plan into two parts. Two apartments locate on both sides of the stairs. An open space in front of the apartment can be shared with neighbors visually connected with the people who passing stairs.



#### No.2 Green Stairs

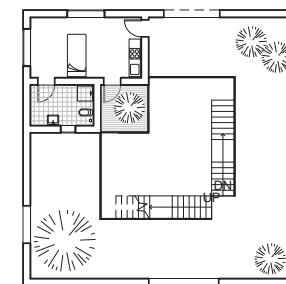
The northern corridor and the balconies on south provide two green facades for the city. People who live in the same floor share a big balcony or have two separated ones. The balconies also function like stairs that link the roof garden with the landscape on ground.





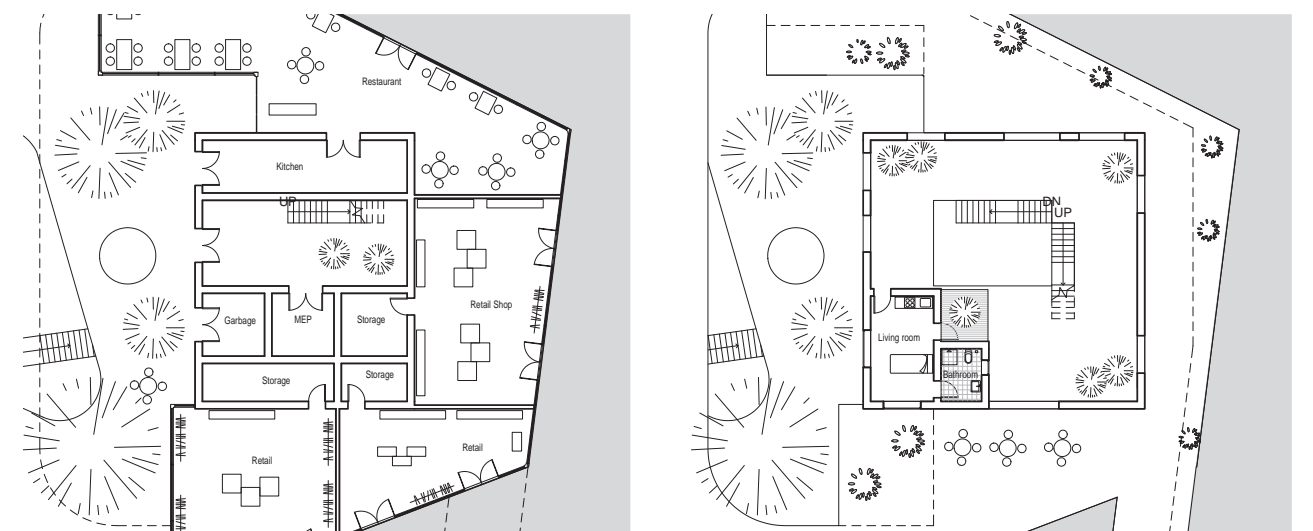
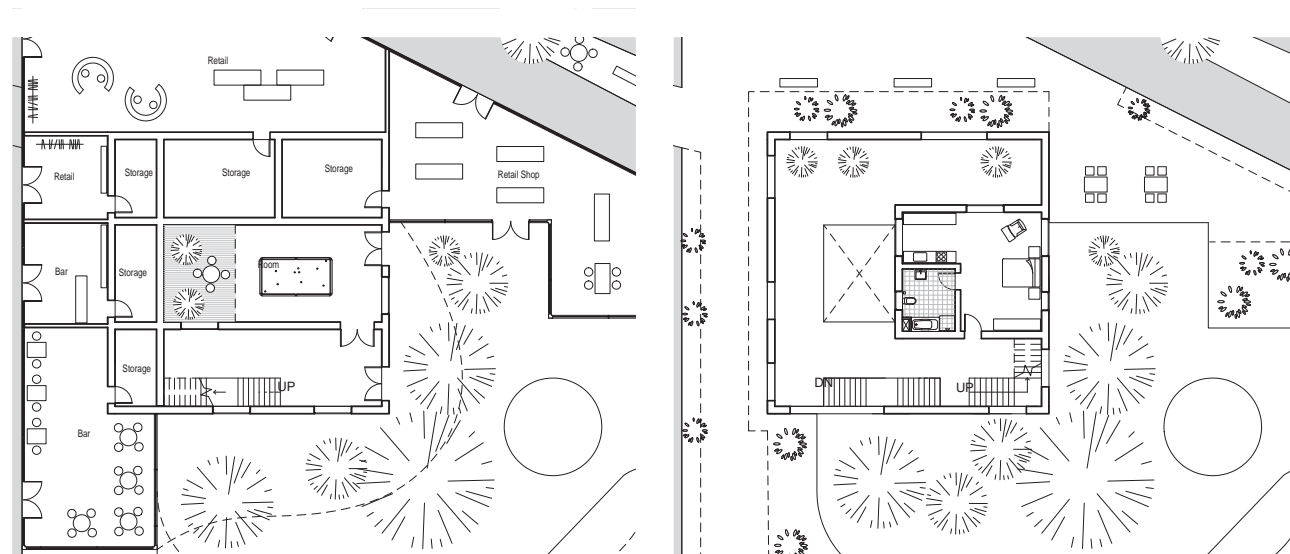
### No.3 Wandering Path

This is a design thinking based on vertical yard. The stairs in different directions provide a wandering path. People who live in one apartment actually also occupy one floor. The irregular vertical open space gives them the chance to connect with their neighbors who live on lower floors.



### No.4 Green Atrium

The building has a green atrium. Meanwhile, it is a light well which introduces the sunshine and air. The small apartment modestly occupies one corner of the floor. Each apartment extends a corner to the atrium. The corner space functions as a small balcony, which can be provided for plants. From the top view, the atrium is stacked by many green layers.

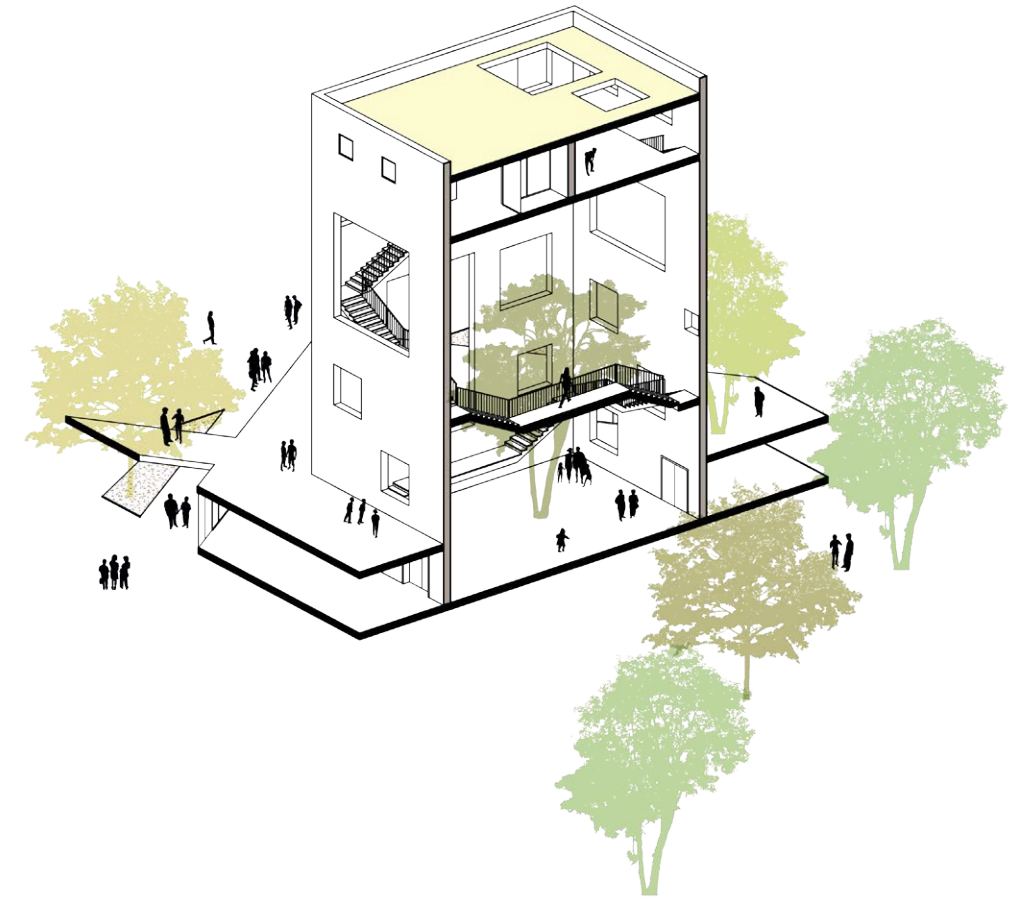
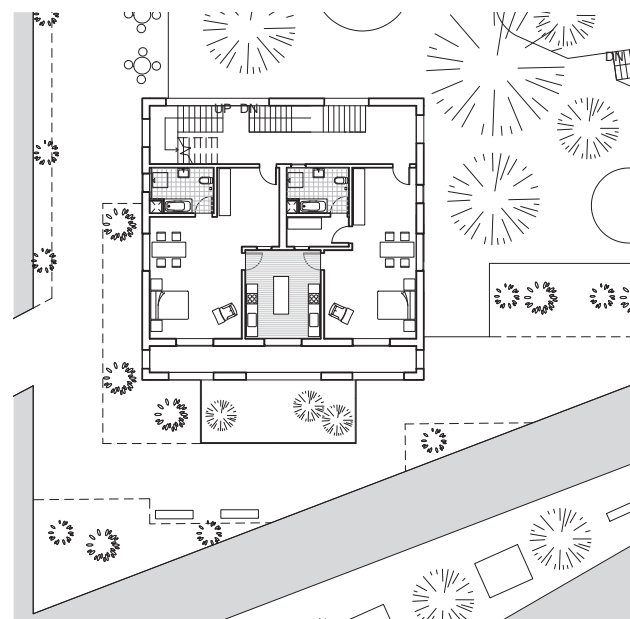
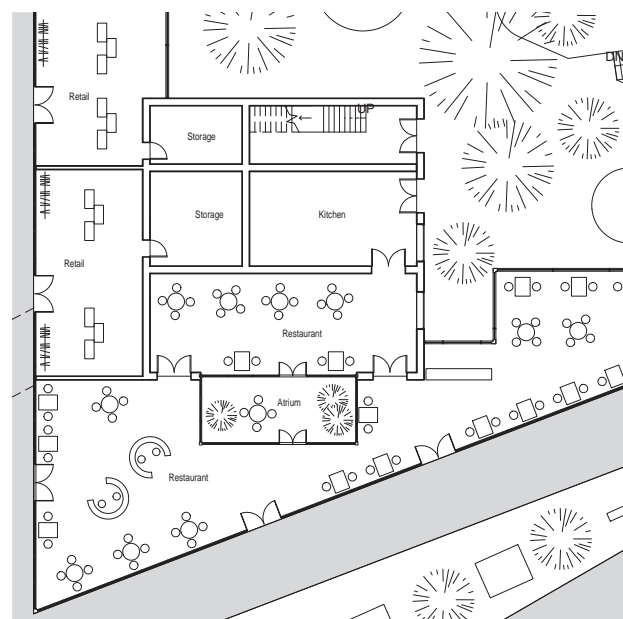
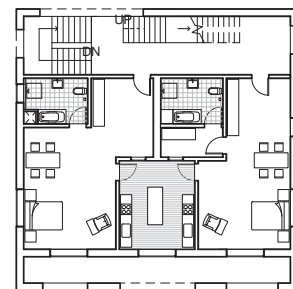






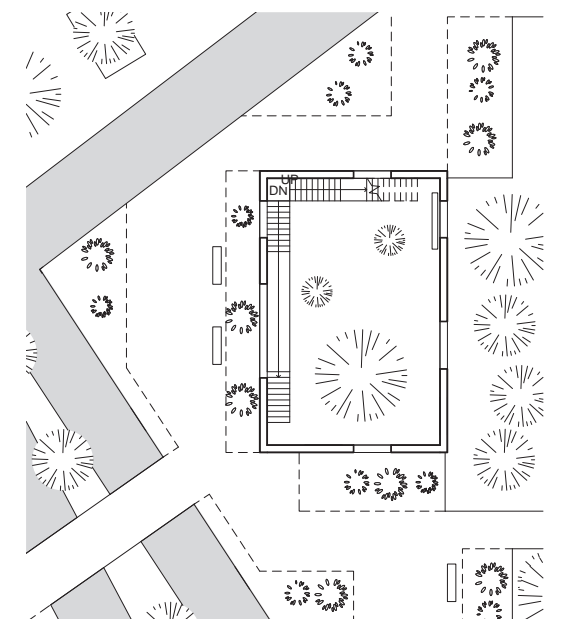
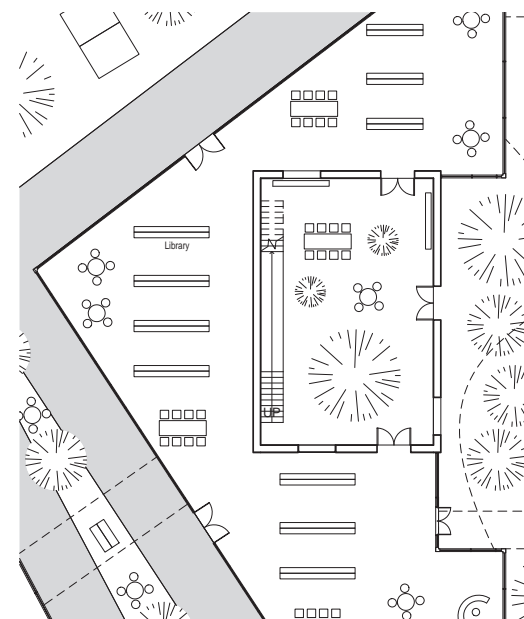
#### No.5 A shared kitchen

With a restaurant at the bottom of the building, the open yard at each floor works as a common kitchen. A kitchen shared by people in one floor was common to see in China 30 years ago. But nowadays people have already been used to lonely apartment. This layout is a rethinking about the isolation among city residents today and it aims at recalling people's old memory.



#### No.6 Wandering Atrium

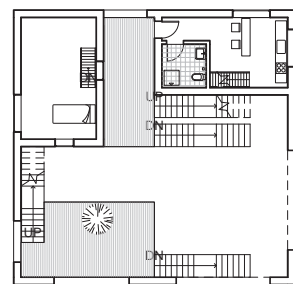
This is more like a sculpture than an architecture. When public space arrives an extreme level, it will diminish itself. The high atrium for trees which connects to the library nearby. But it also can be an independent common space for the city. There is an apartment at the top of the atrium. It provides for the hermit in modern society.





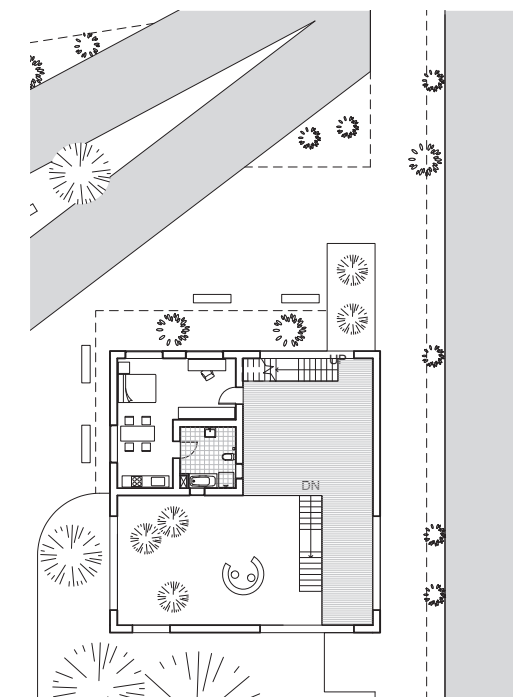
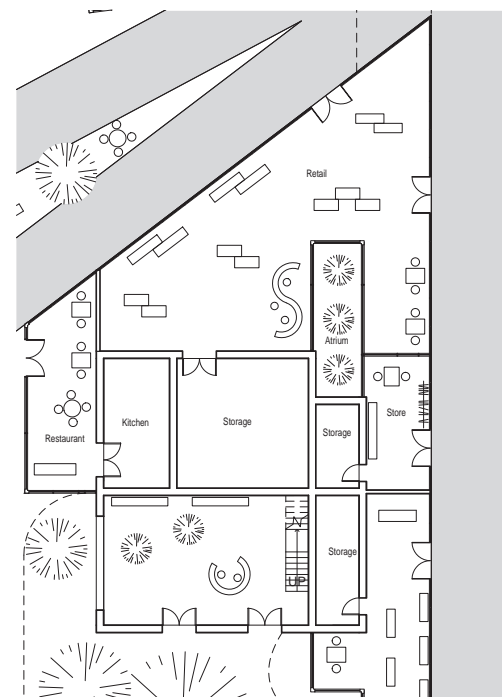
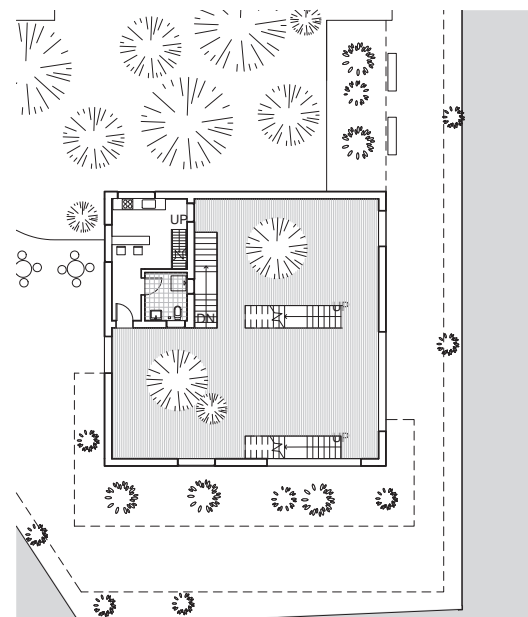
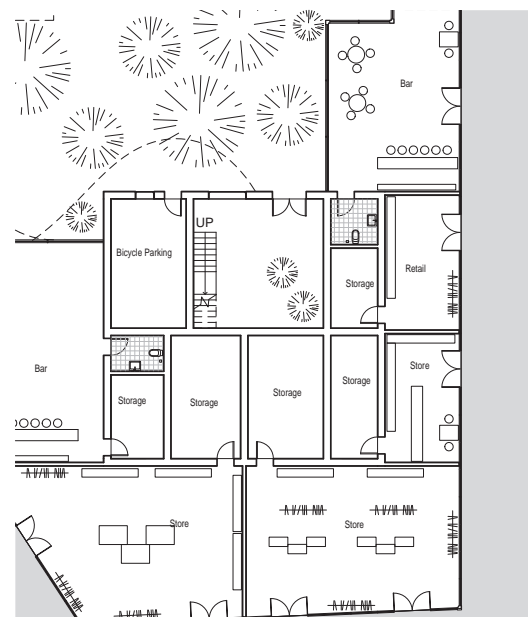
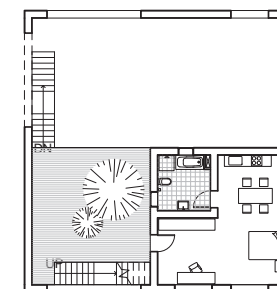
#### No.7 Social boxes

The units for living are randomly placed in the building. The top of unit is used as a terrace of greens and social activities. The design contains a potential thinking of vertical extension and growth, which can be implanted in high-rise housing towers.



#### No.8 Social Levels

The building is designed for the people who like social activities. There is an open yard in front of each apartment, which can be the place for many activities. People who live higher have to pass through other people's yards then they can arrive their own homes. The most social people can choose live at lower floors. So they have more chances to know new friends.







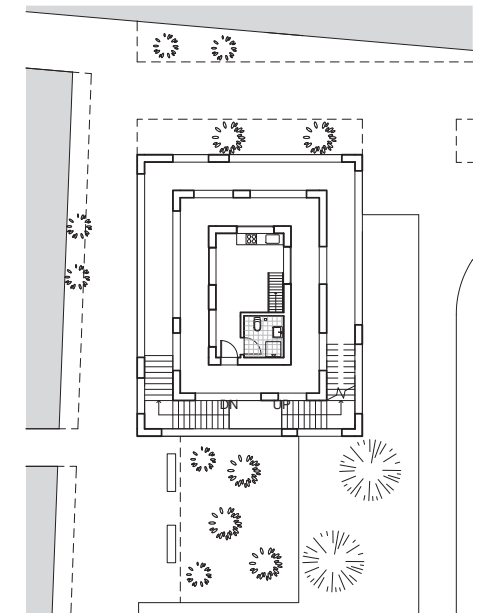
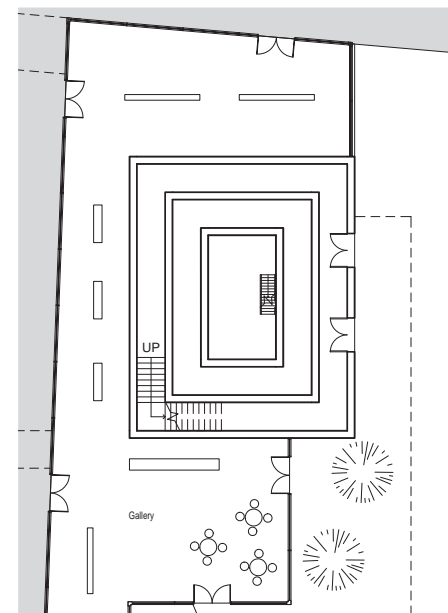
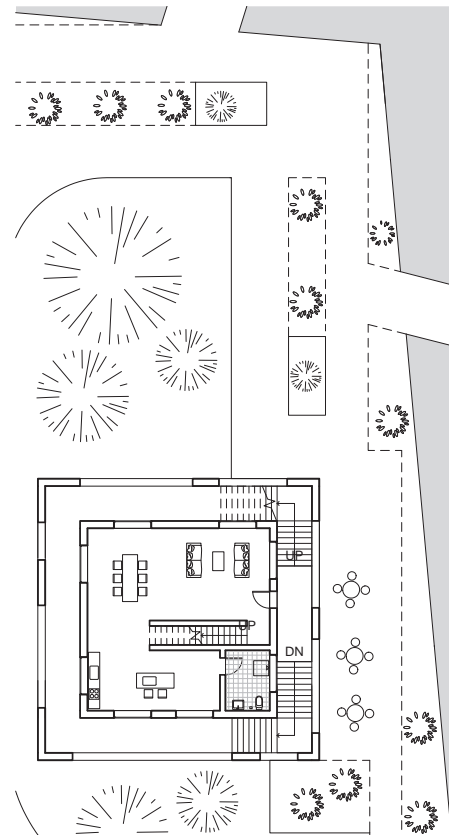
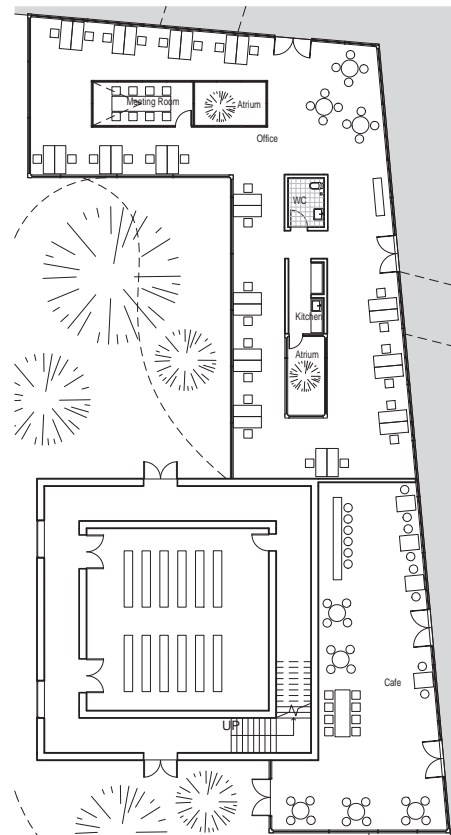
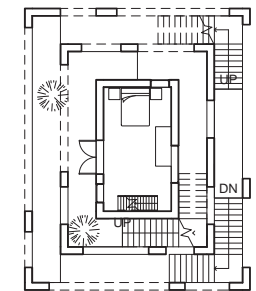
#### No.9 Boundary of stairs

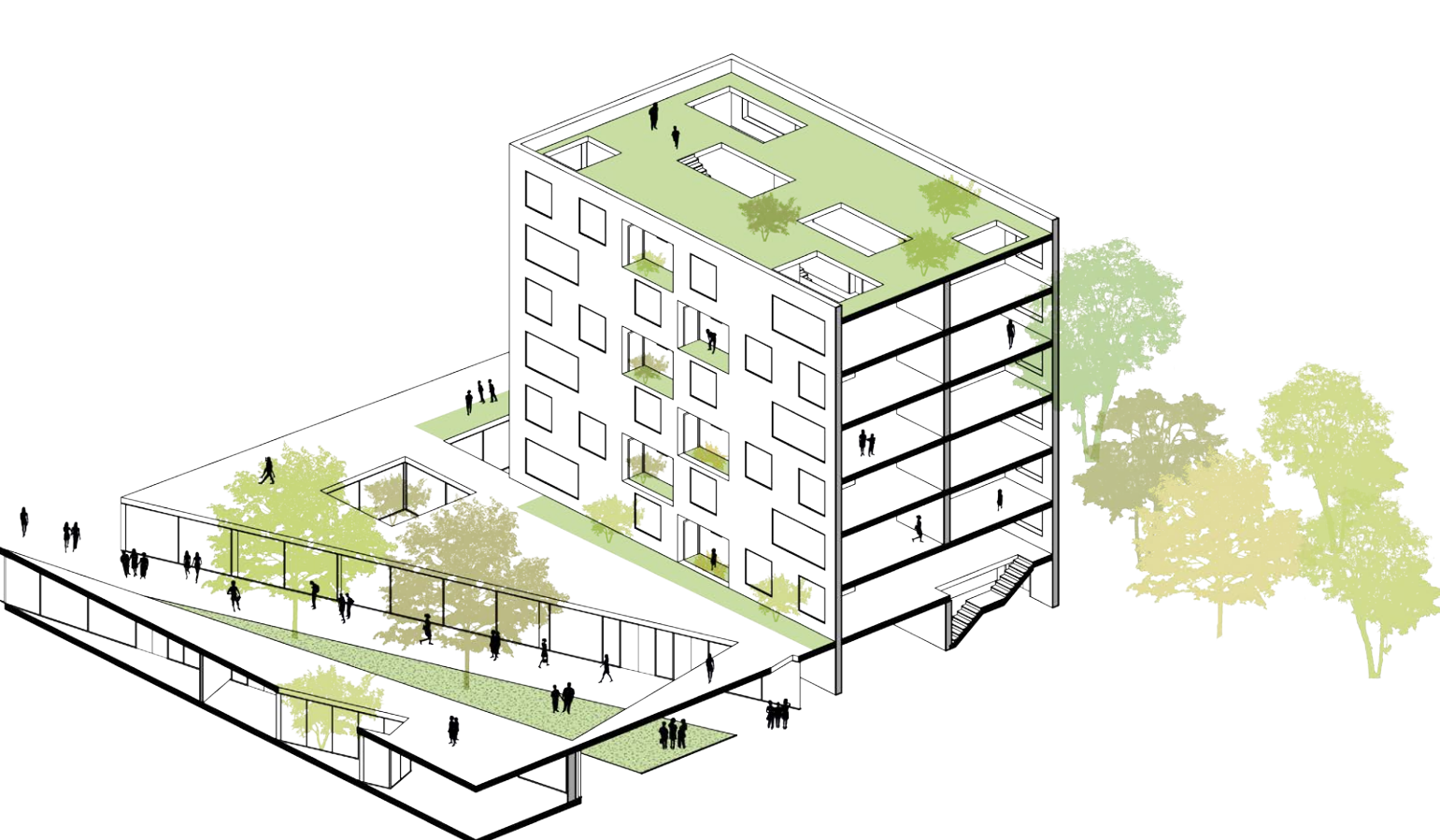
The double facades create a kind of in-between space. It is not only the space for stairs, but also a canvas to record people's actions. The space does not merely belong to the building but to the city. It is a very soft boundary between public and private sphere.



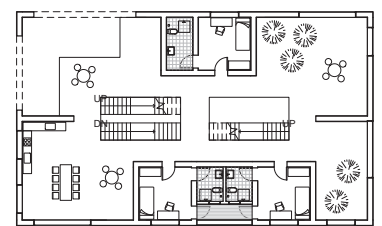
#### No.10 Envelopes

This is a villa which has three layers of facade. The private and functional programs are vertically arranged in the center core. The layers surround the core develop different depth attached to the exterior space. The boundary of inside and outside becomes very unclear.

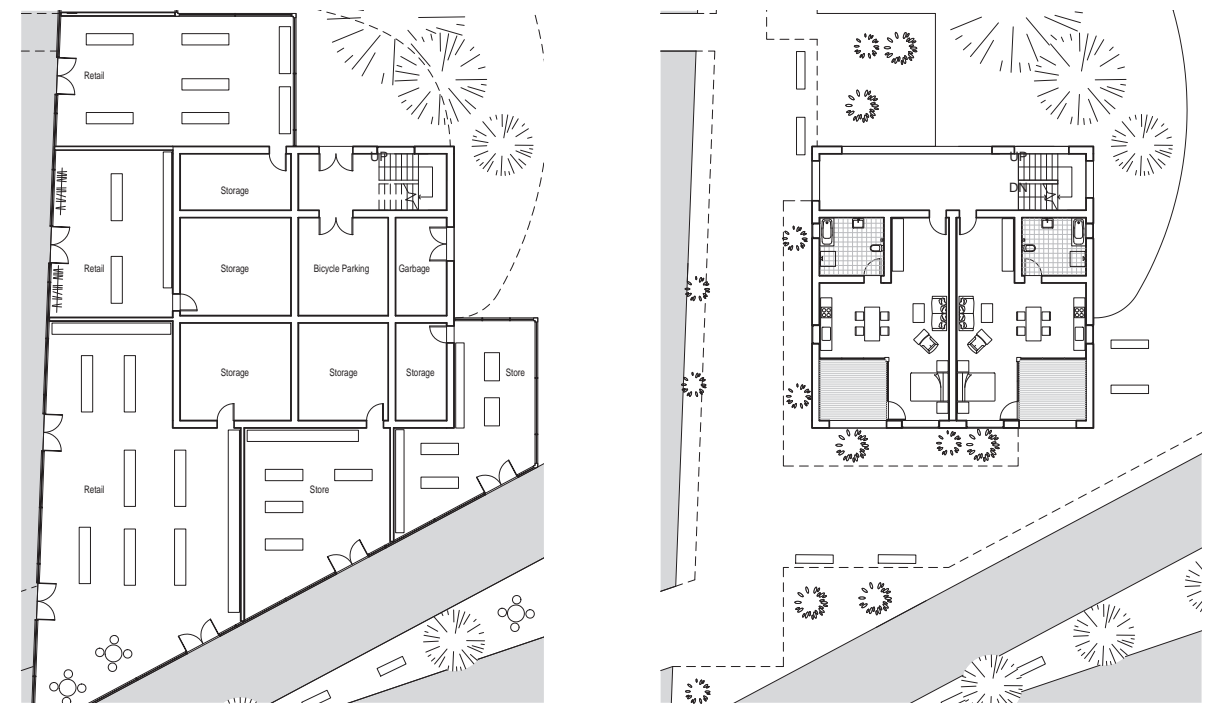
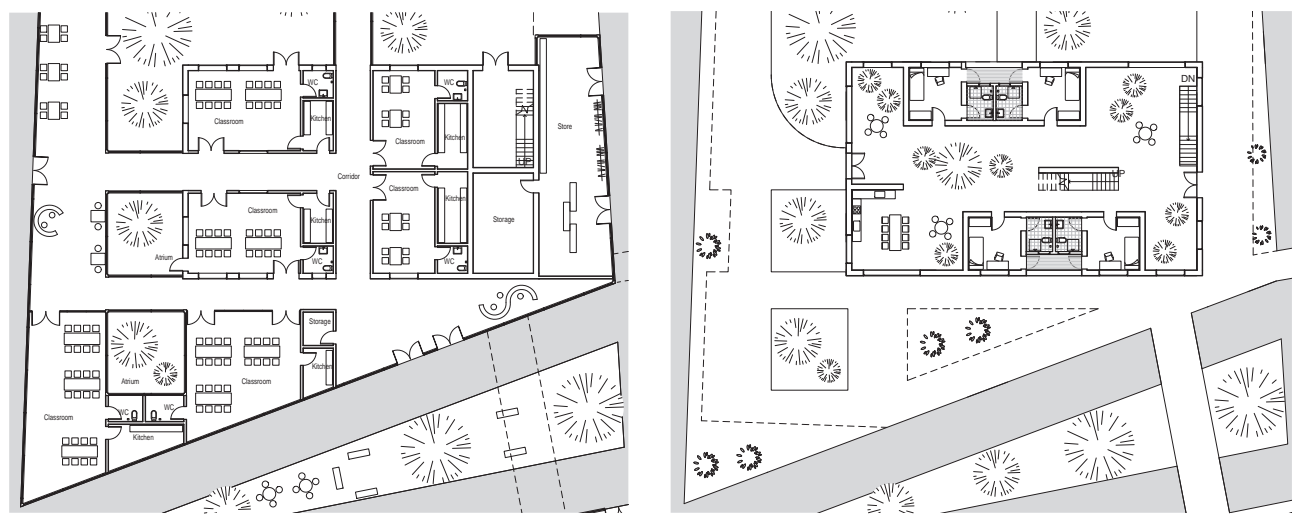




**No.11 Free moving floor**  
 The modular apartments are arranged on the floor plan by different types. The small rooms still have a common balcony for communication between neighbors. The rest space of the floor can be the place for many events.



**No.12 Prototype**  
 It is the basic prototype for several buildings in this housing complex. It includes some basic thinking about the layout on plan, such as the locations of stairs, corridor and balconies. The life there will be organized in a cross plan which is geometrically symmetry.





## 6. Conclusion

*"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness."* Charles Dickens, *A Tale of Two Cities*, 1859

The dramatic urbanization in China is a special period of time. It is a time of fast growing and brutal ruin. In many ways, people have to decide whether the priority is for efficiency or quality. With a huge demand in Chinese cities, it is an emergent task that arrange people who newly come to cities to find homes. The massive duplication of point blocks today seems to be a necessary evil. The only question might be how long the situation would continue to last? On the other hand, the quality in general meaning will be more and more involved in the consideration of urban development. For a city, it would be better to keep the works of architecture which are simultaneously old and new. Like Kevin Lynch said: *what we seek is not a final but an open-ended order, capable of continuous further development.*<sup>1</sup> For new building and planning, one mission is to develop a new spatial system rather than simply destroying the old. In addition, China still has a lot space to progress in both architectural thinking and construction quality. In the foreseeable future, the quality in many aspects can be improved when the urbanization is gradually done. Eventually, China will emphasize the importance of design since the economic fast growth will be ended sooner or later. In a time that Chinese economy would be more domestic consumption directed, it is inevitable that more public space will be involved in design thinking to satisfy people's need for a better dwelling. In the project, it represents a community that has an integration of different urban programs, various public space, sufficient landscape, continuous facades along street and a slow speed of mobility. Hopefully, the ideas and concepts from the project can contribute to the design thinking for real projects in the future.

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<sup>1</sup> Lynch, Kevin. The Image of the City. Cambridge, MA: MIT, 1960. Print. P5